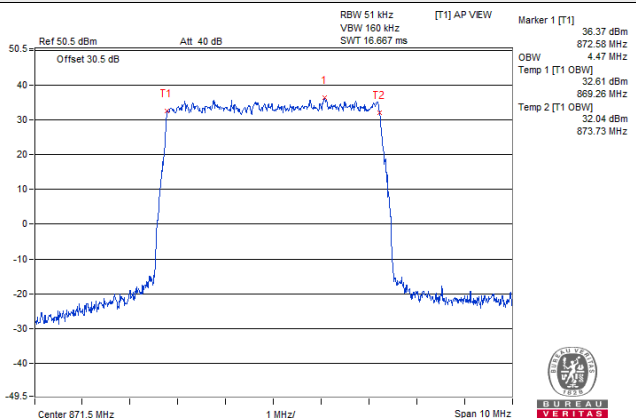
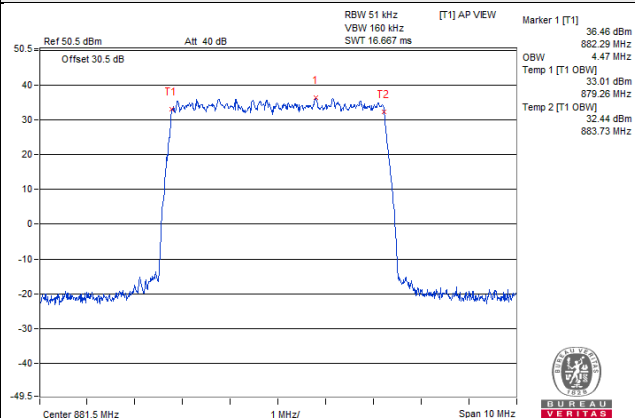


64QAM

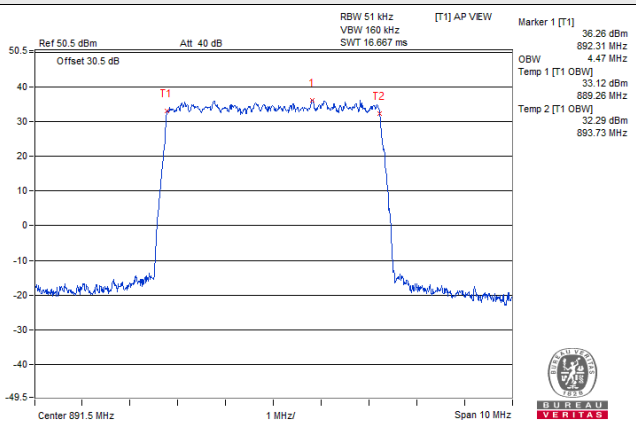
Channel: 174300



Channel: 176300

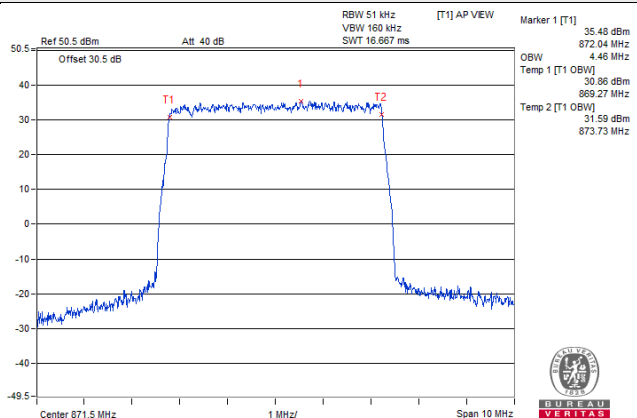


Channel: 178300

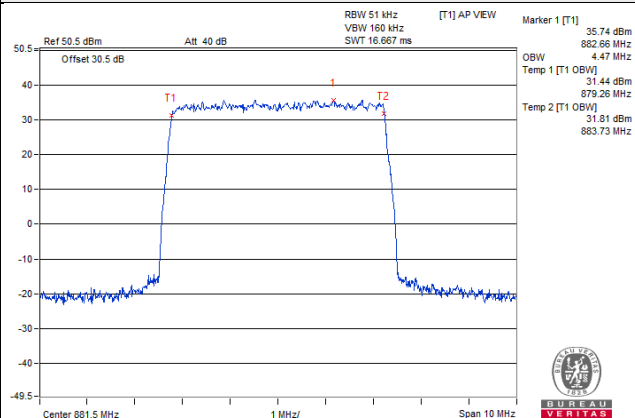


256QAM

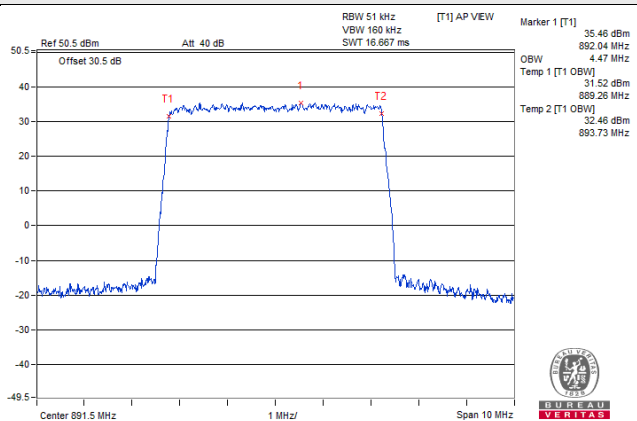
Channel: 174300



Channel: 176300



Channel: 178300



10MHz

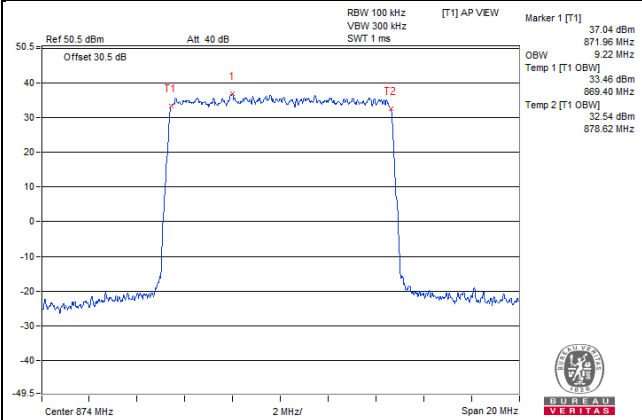
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800	874	9.22	9.14	9.20	9.20	9.20	9.14	9.20	9.18
176300	881.5	9.20	9.14	9.22	9.20	9.22	9.14	9.20	9.18
177800	889	9.22	9.12	9.22	9.20	9.20	9.14	9.22	9.20

Chain 0

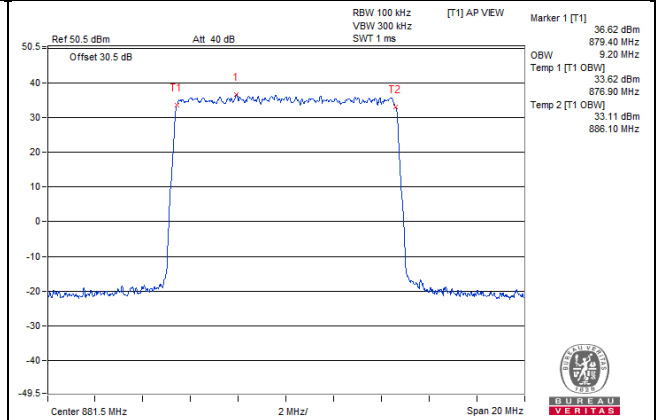
Spectrum Plot of Worst Value

QPSK

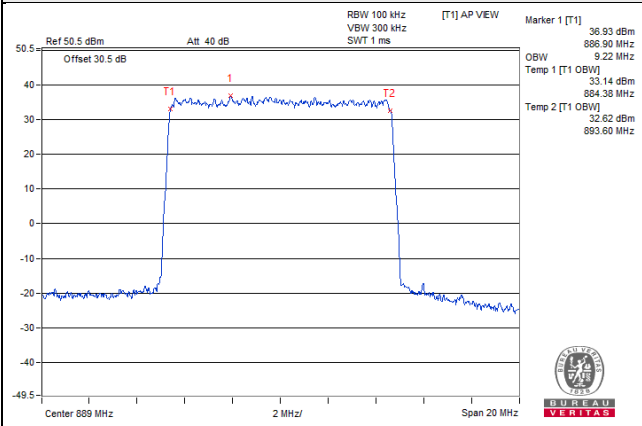
Channel: 174800



Channel: 176300

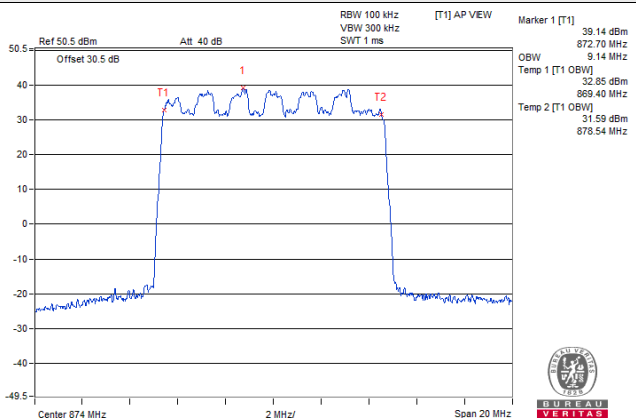


Channel: 177800

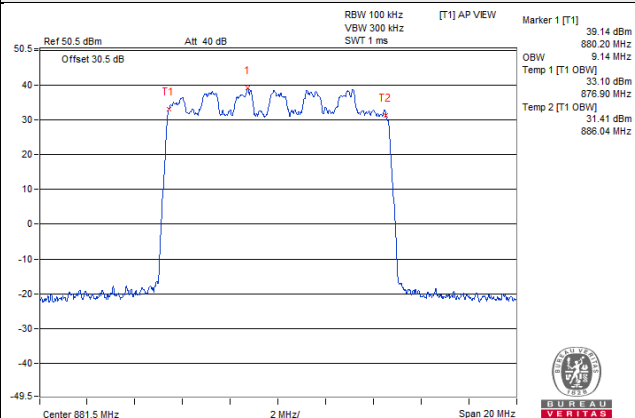


16QAM

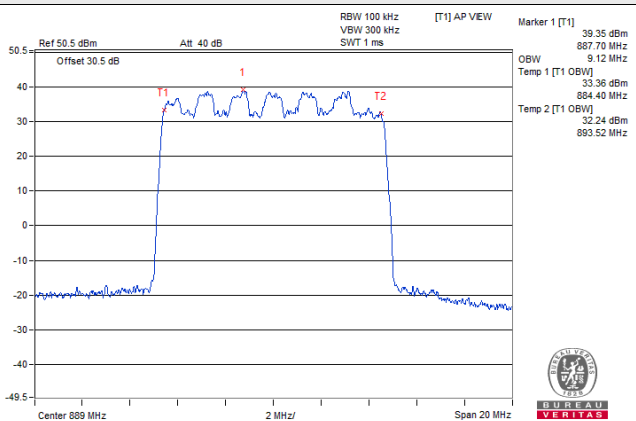
Channel: 174800



Channel: 176300

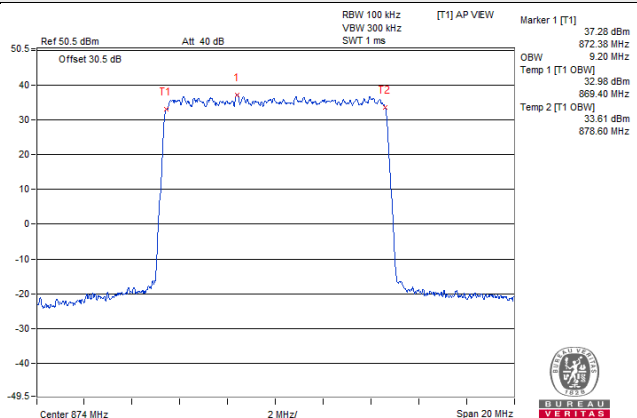


Channel: 177800

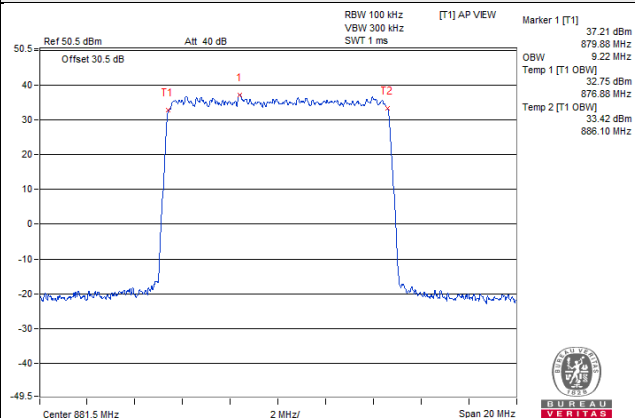


64QAM

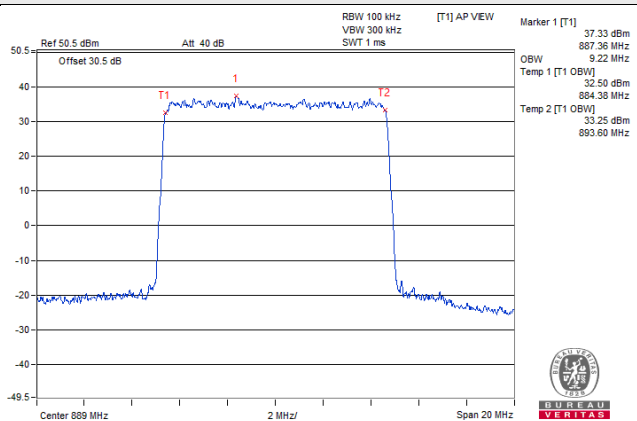
Channel: 174800



Channel: 176300

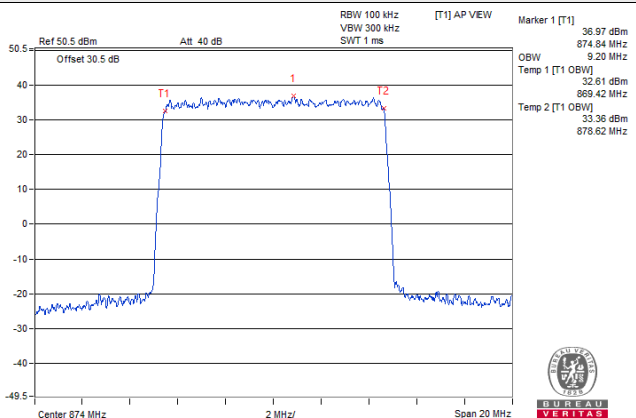


Channel: 177800

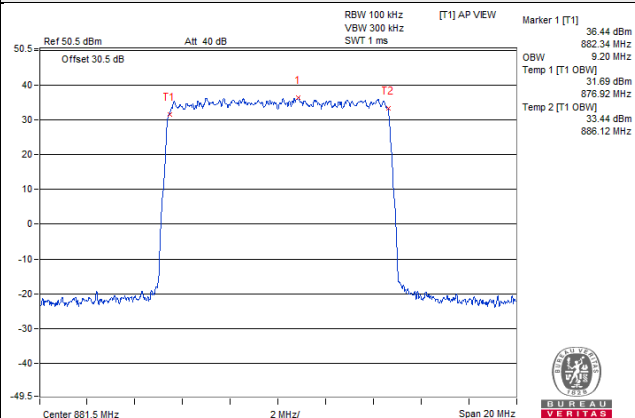


256QAM

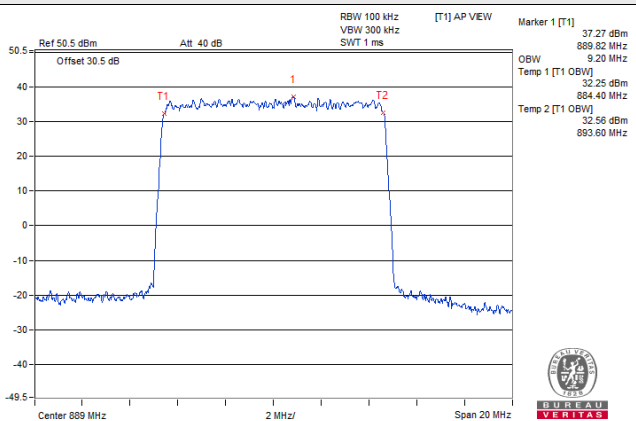
Channel: 174800



Channel: 176300



Channel: 177800



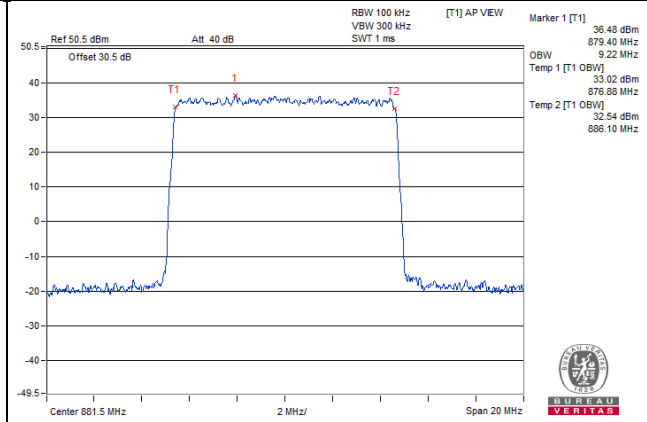
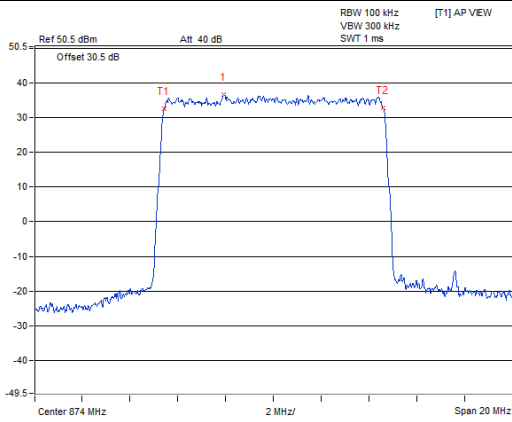
Chain 1

Spectrum Plot of Worst Value

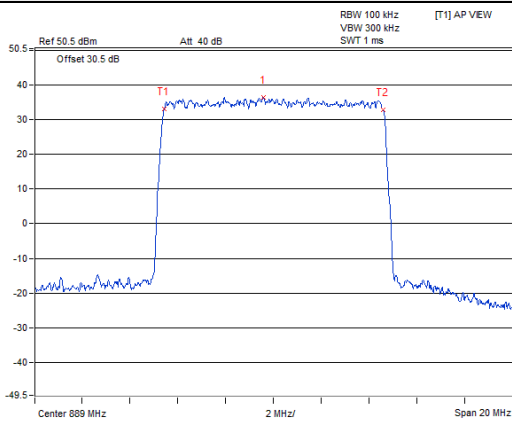
QPSK

Channel: 174800

Channel: 176300

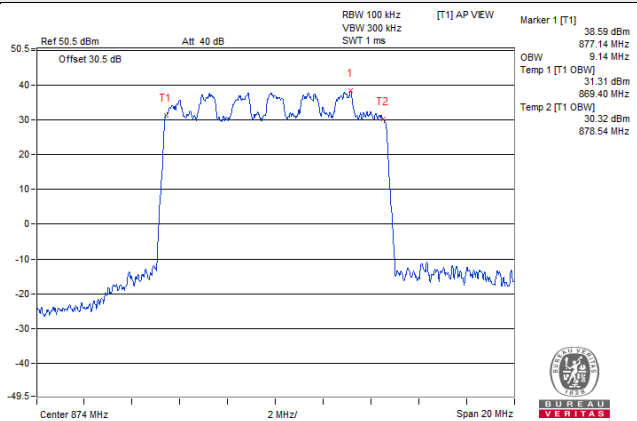


Channel: 177800

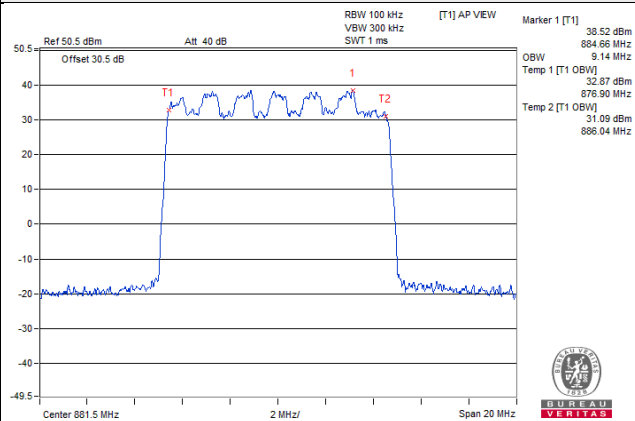


16QAM

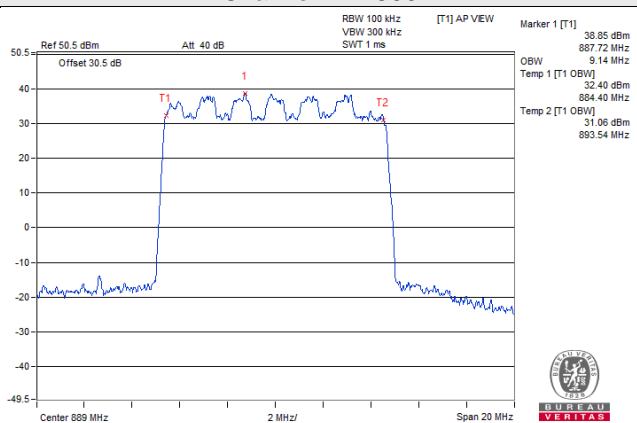
Channel: 174800



Channel: 176300

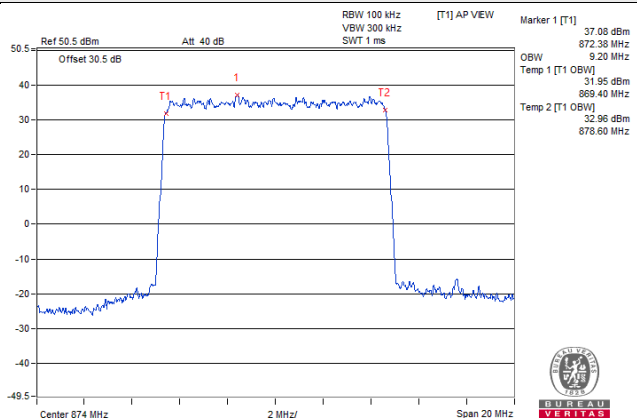


Channel: 177800

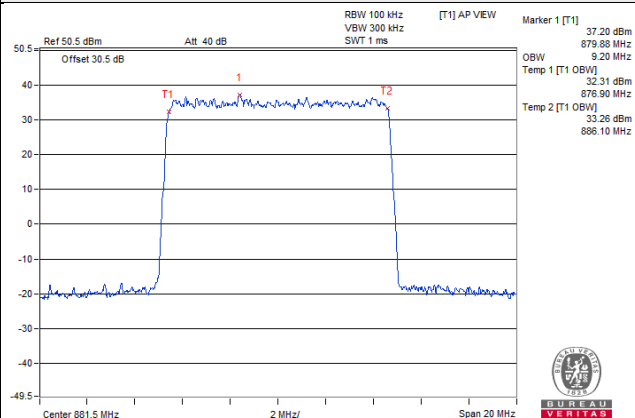


64QAM

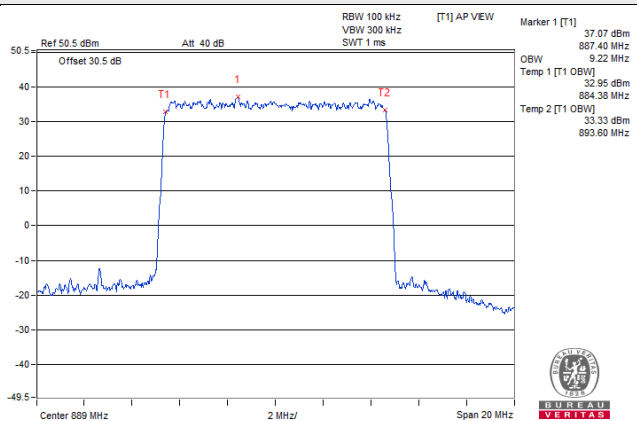
Channel: 174800



Channel: 176300

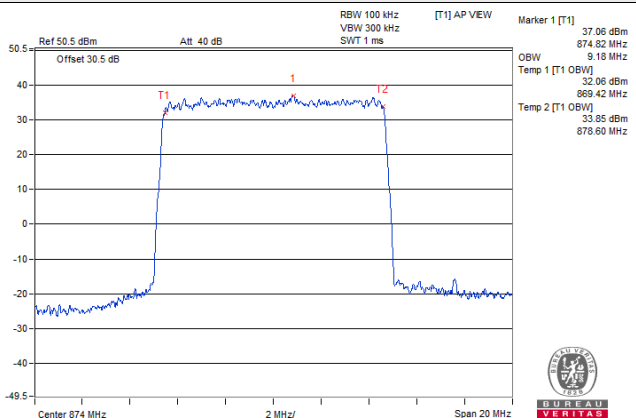


Channel: 177800

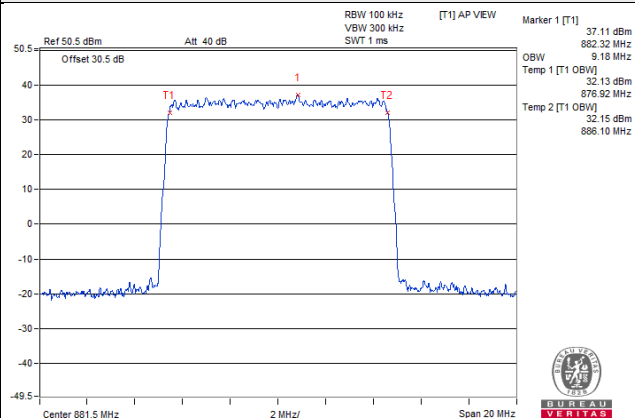


256QAM

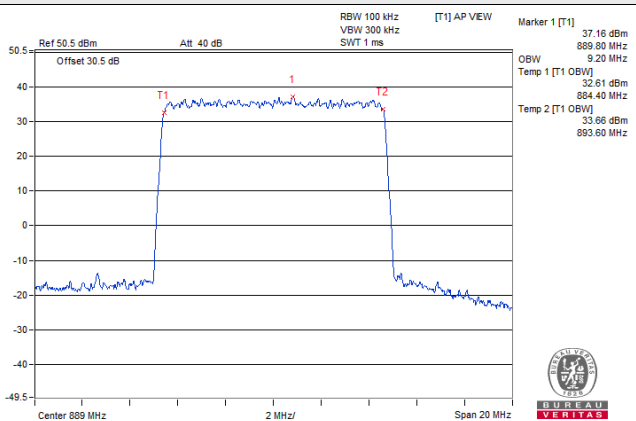
Channel: 174800



Channel: 176300



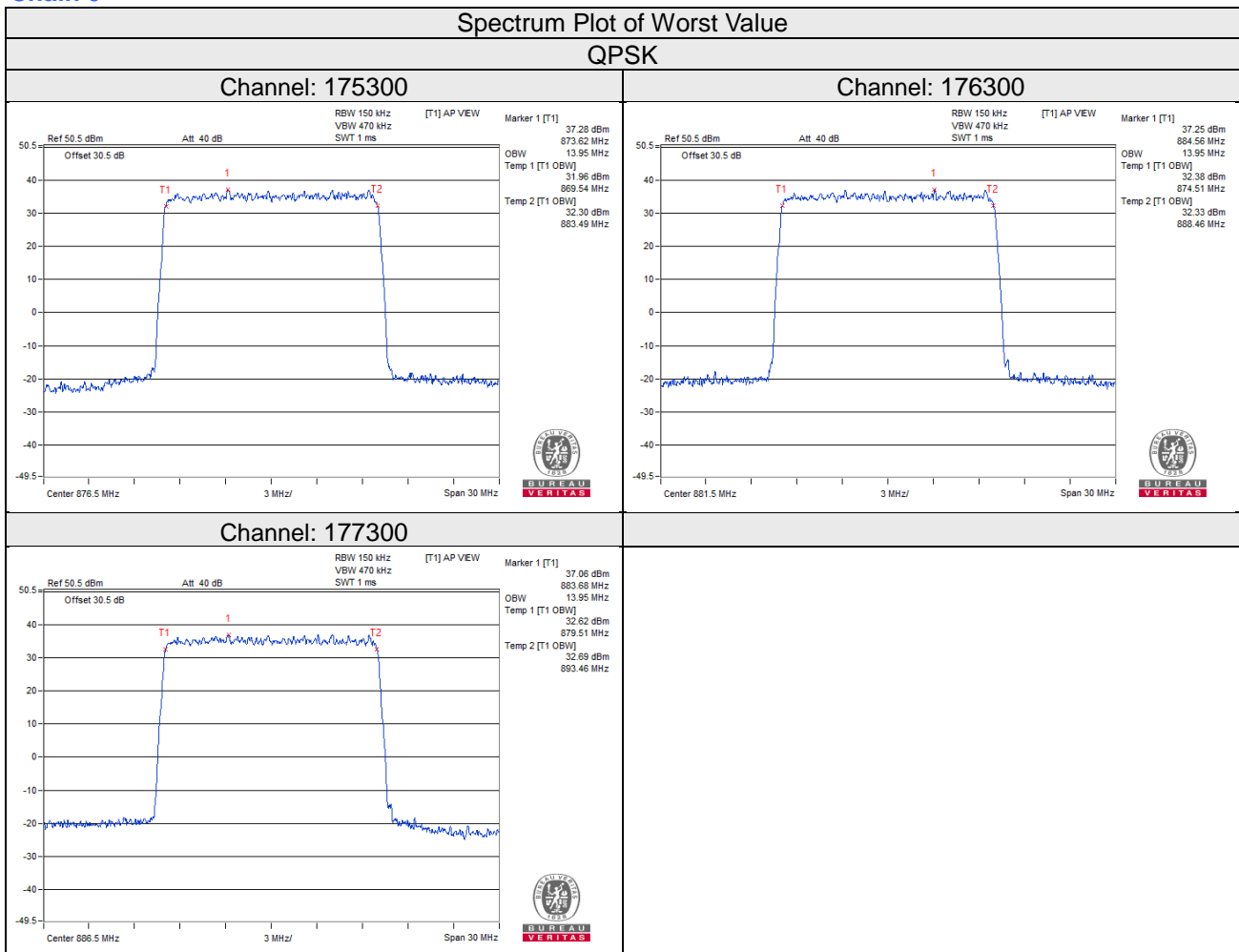
Channel: 177800



15MHz

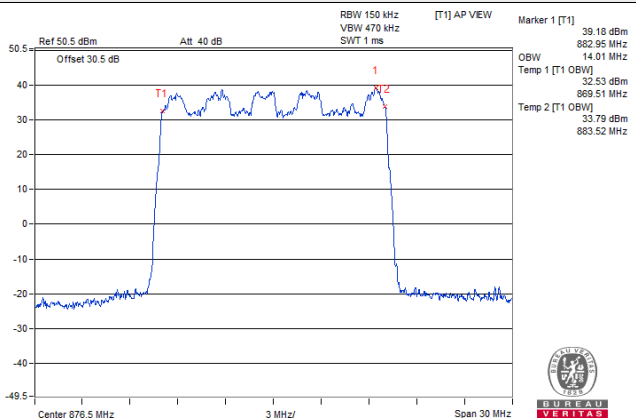
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
175300	876.5	13.95	14.01	13.95	13.92	13.98	14.01	13.95	13.92
176300	881.5	13.95	14.01	13.92	13.95	13.95	14.01	13.92	13.95
177300	886.5	13.95	14.01	13.92	13.92	13.95	14.01	13.92	13.95

Chain 0

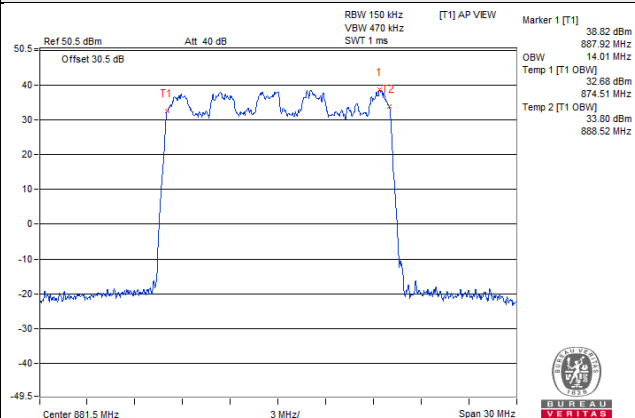


16QAM

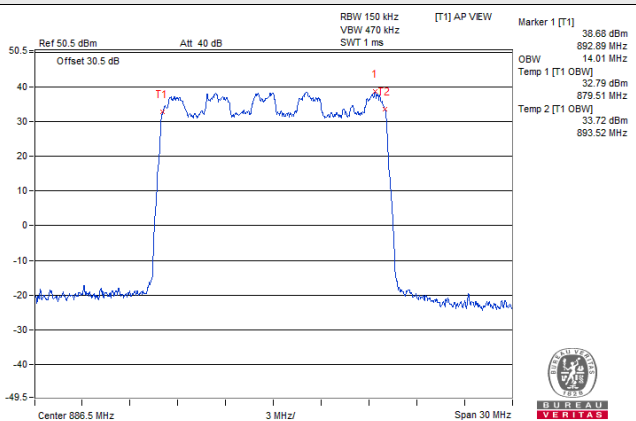
Channel: 175300



Channel: 176300

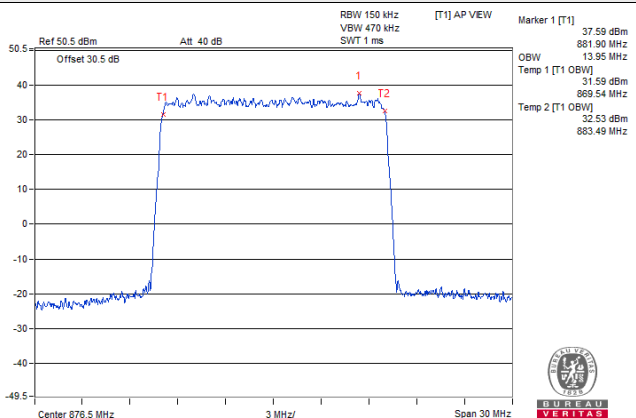


Channel: 177300

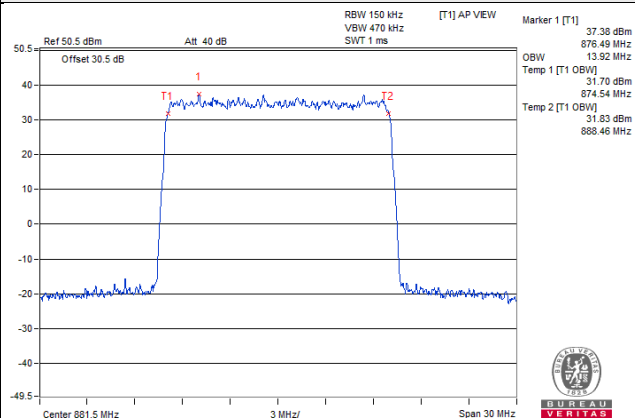


64QAM

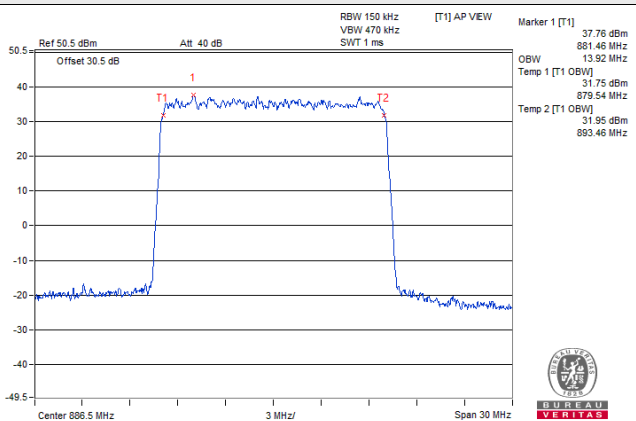
Channel: 175300



Channel: 176300

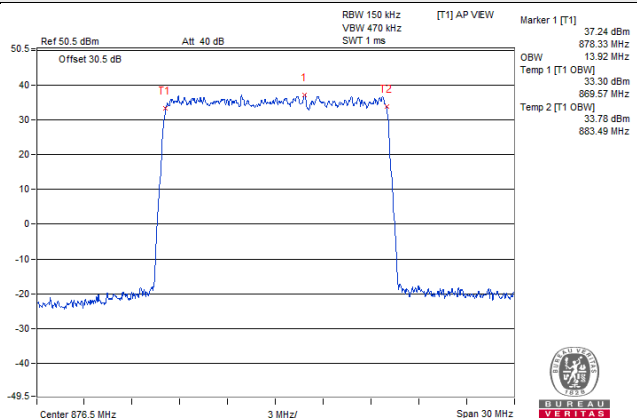


Channel: 177300

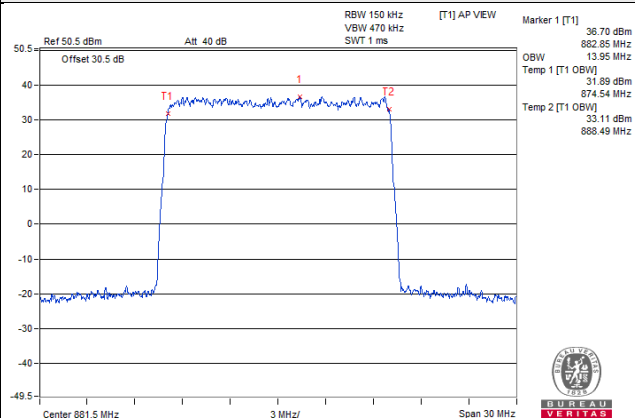


256QAM

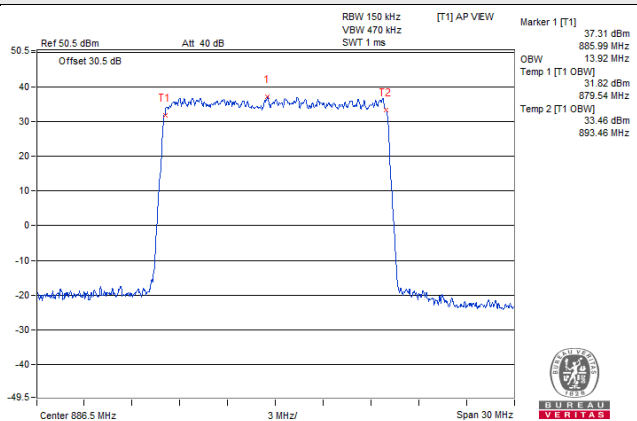
Channel: 175300



Channel: 176300



Channel: 177300

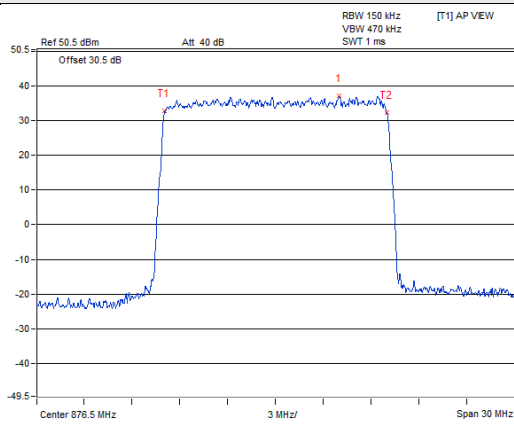


Chain 1

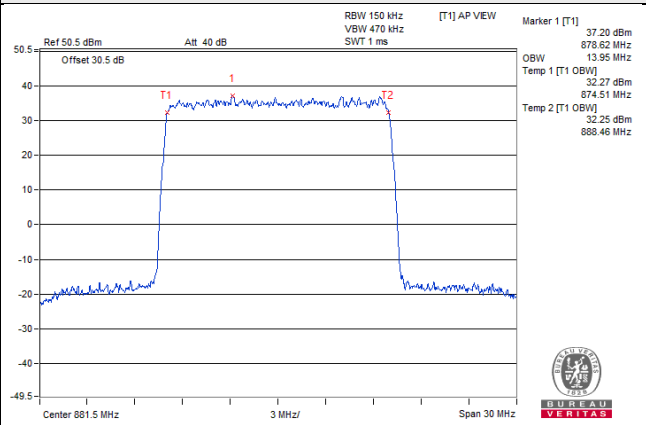
Spectrum Plot of Worst Value

QPSK

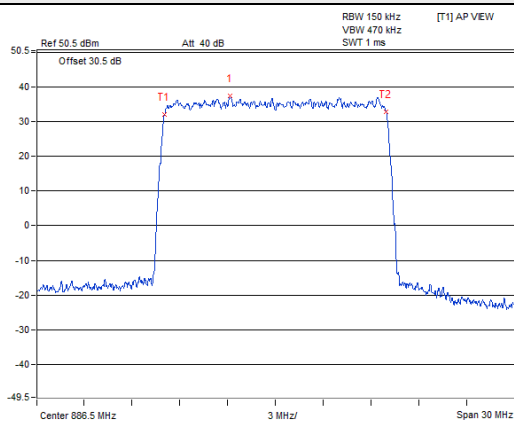
Channel: 175300



Channel: 176300

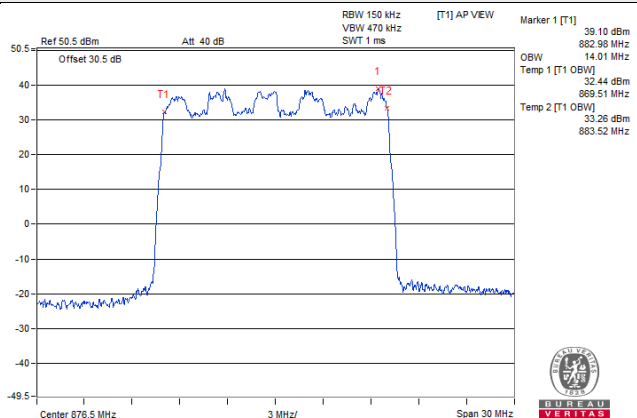


Channel: 177300

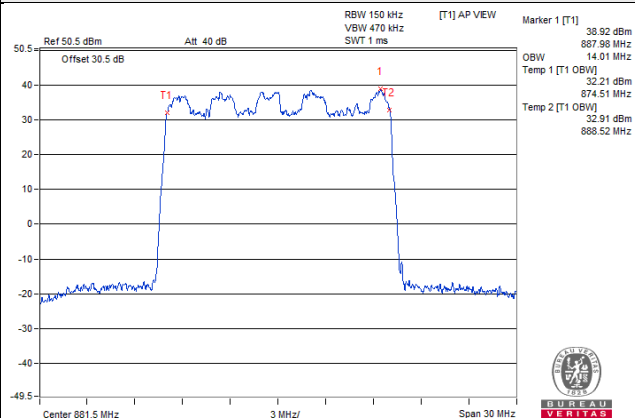


16QAM

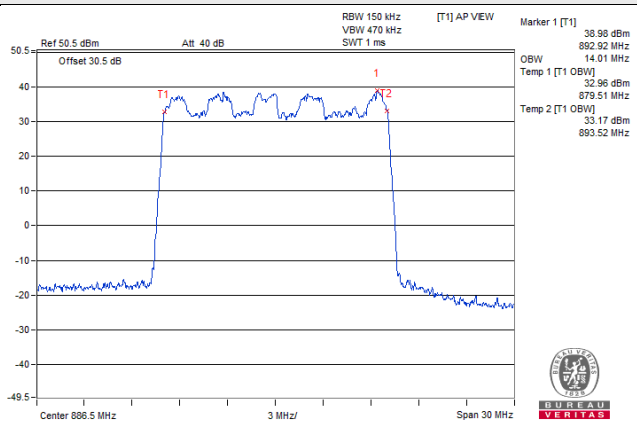
Channel: 175300



Channel: 176300

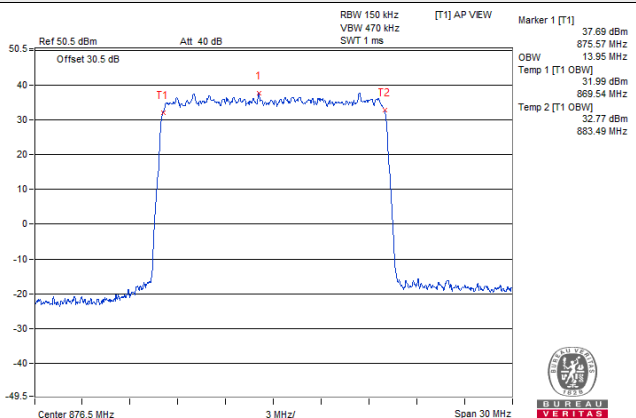


Channel: 177300

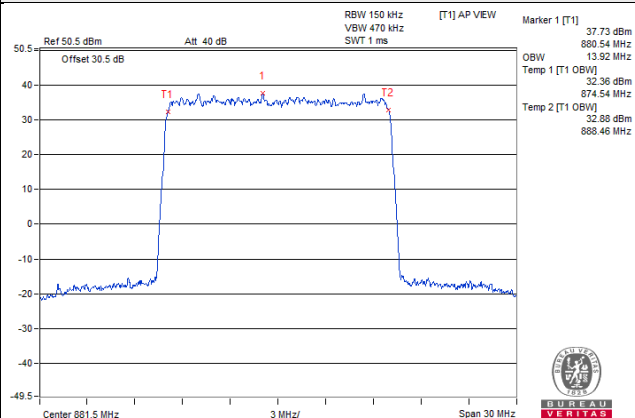


64QAM

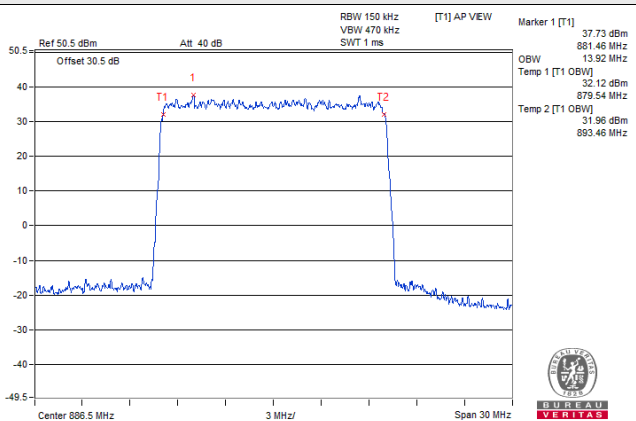
Channel: 175300



Channel: 176300

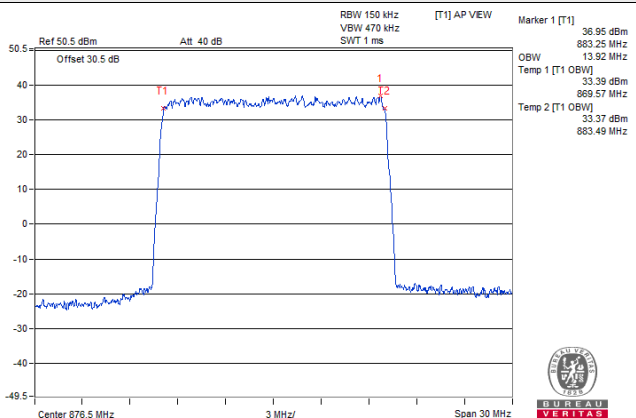


Channel: 177300

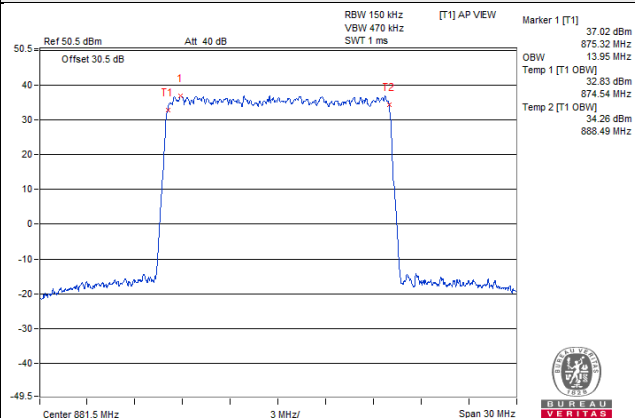


256QAM

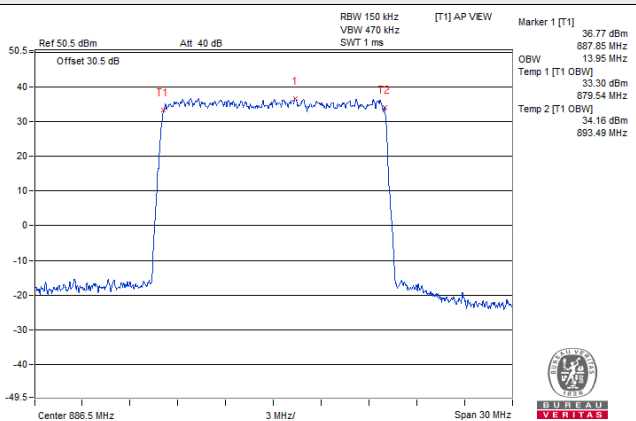
Channel: 175300



Channel: 176300



Channel: 177300



20MHz

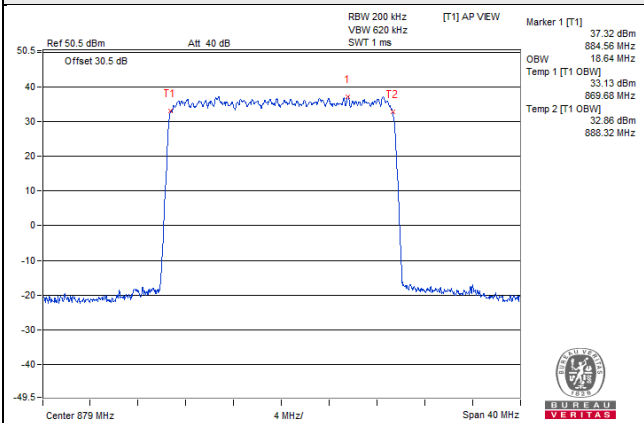
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
175800	879	18.64	18.68	18.60	18.64	18.60	18.64	18.60	18.64
176300	881.5	18.64	18.68	18.60	18.64	18.60	18.68	18.60	18.64
176800	884	18.60	18.68	18.60	18.64	18.60	18.68	18.60	18.64

Chain 0

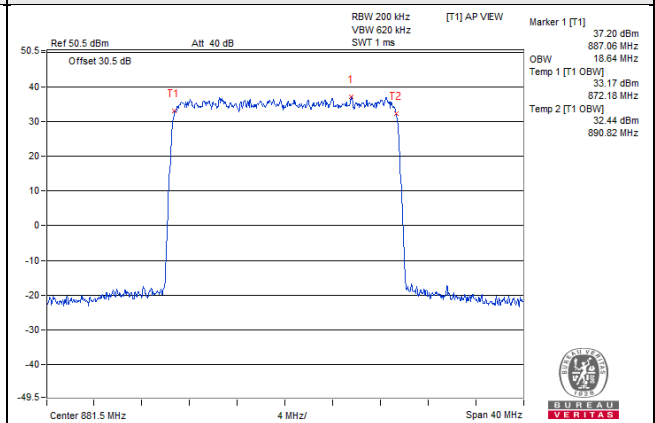
Spectrum Plot of Worst Value

QPSK

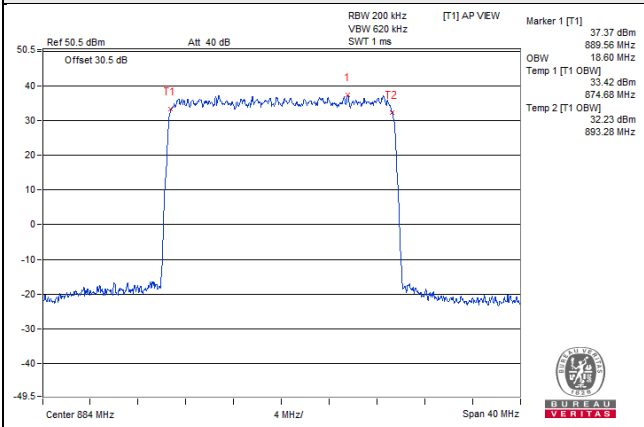
Channel: 175800



Channel: 176300

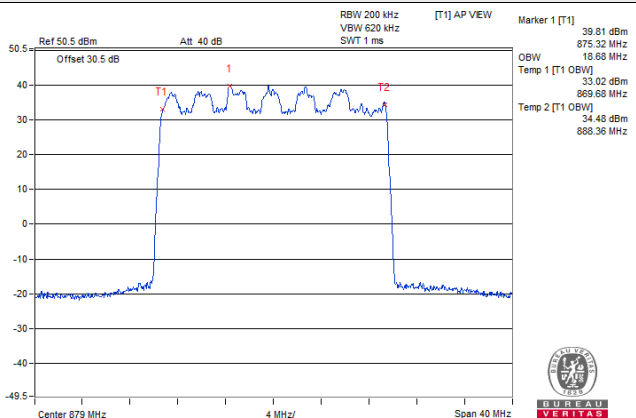


Channel: 176800

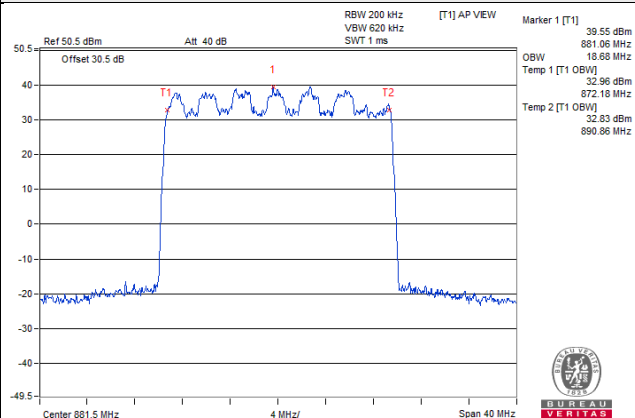


16QAM

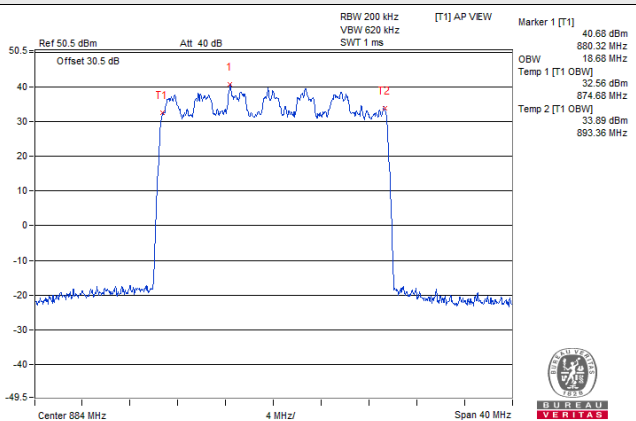
Channel: 175800



Channel: 176300

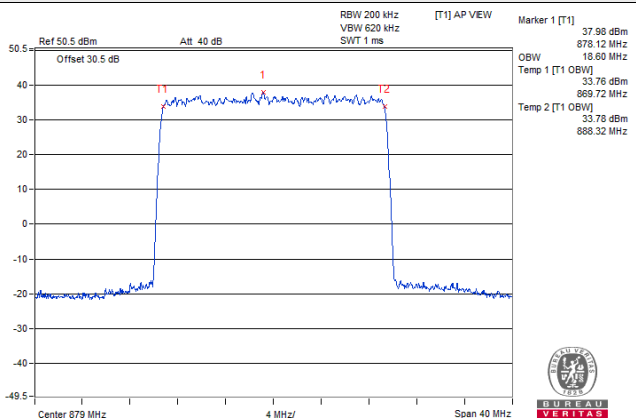


Channel: 176800

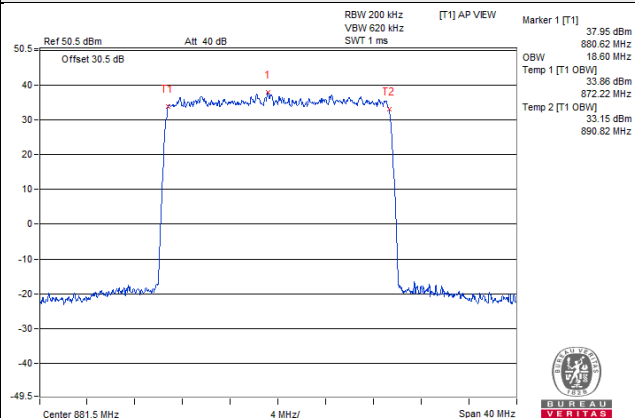


64QAM

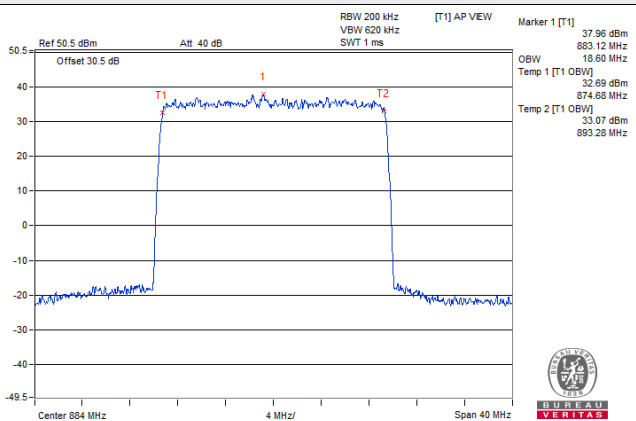
Channel: 175800



Channel: 176300

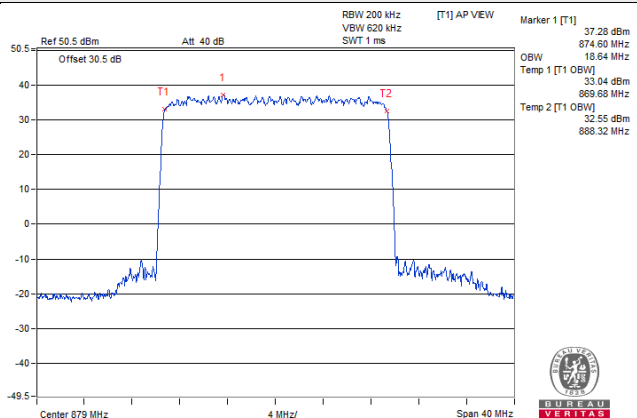


Channel: 176800

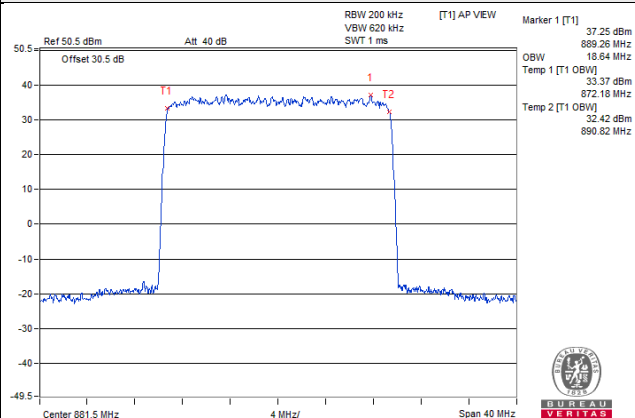


256QAM

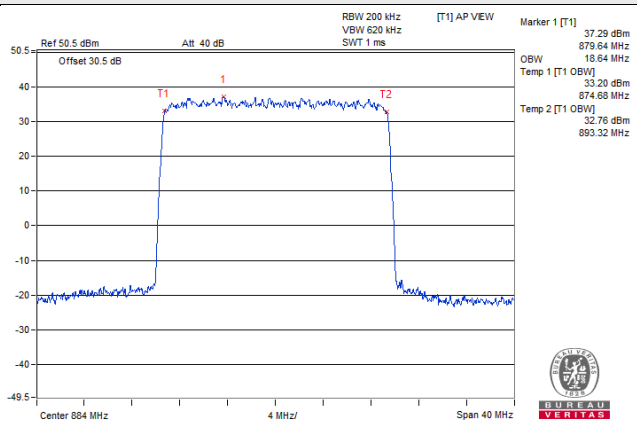
Channel: 175800



Channel: 176300



Channel: 176800

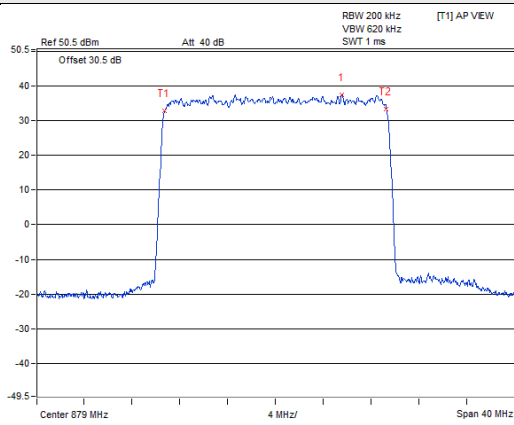


Chain 1

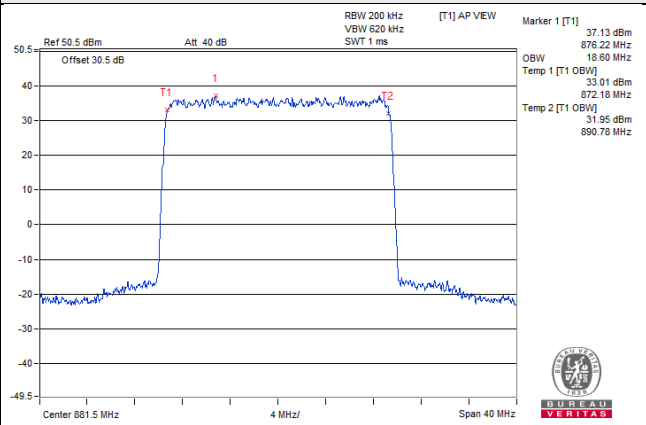
Spectrum Plot of Worst Value

QPSK

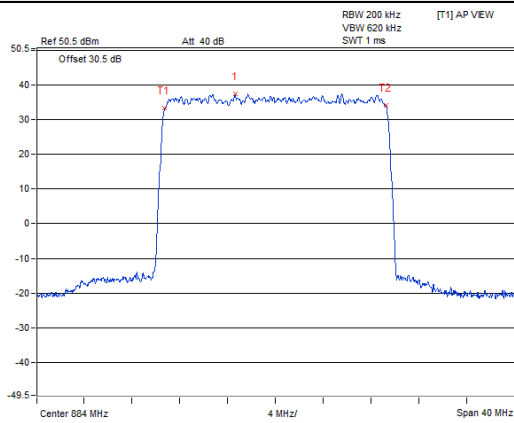
Channel: 175800



Channel: 176300

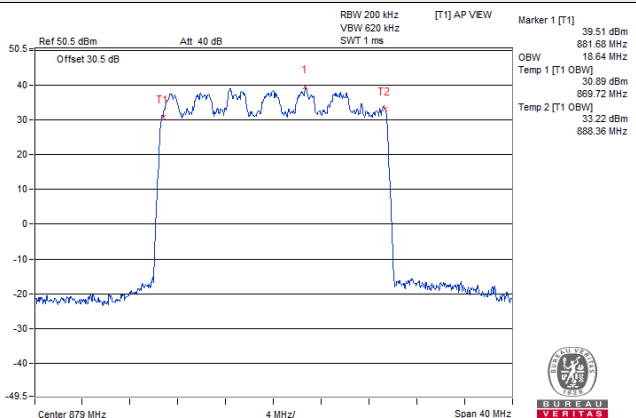


Channel: 176800

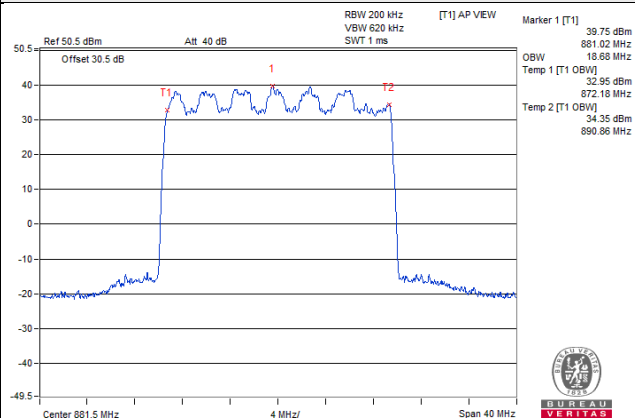


16QAM

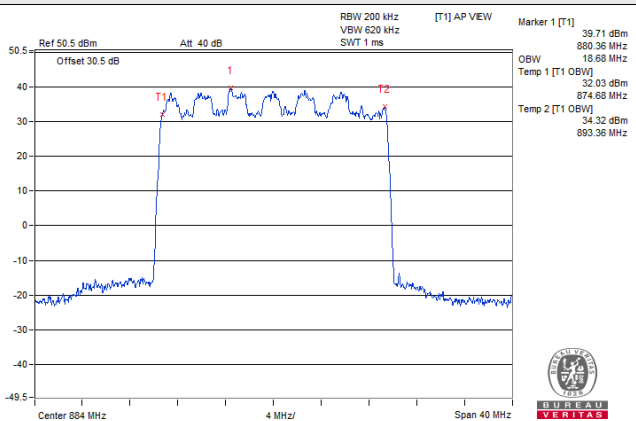
Channel: 175800



Channel: 176300

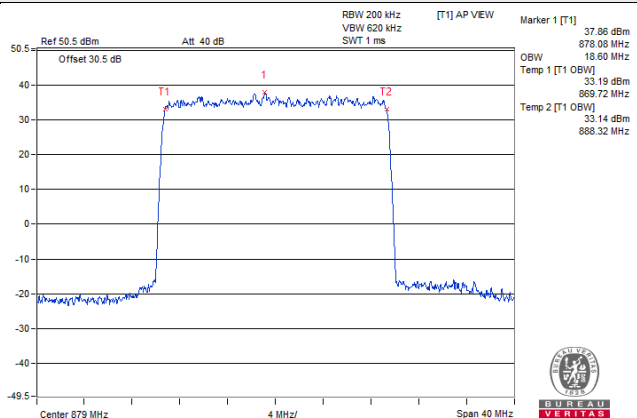


Channel: 176800

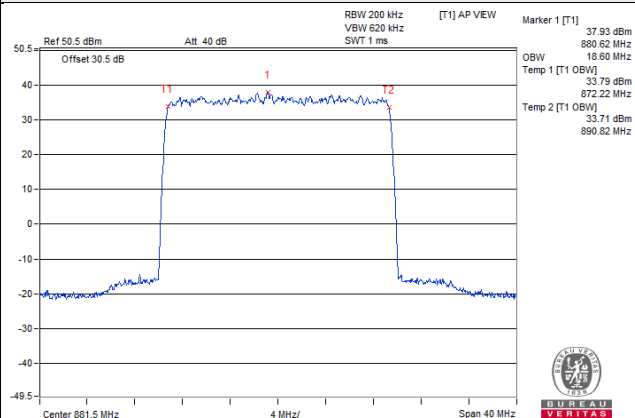


64QAM

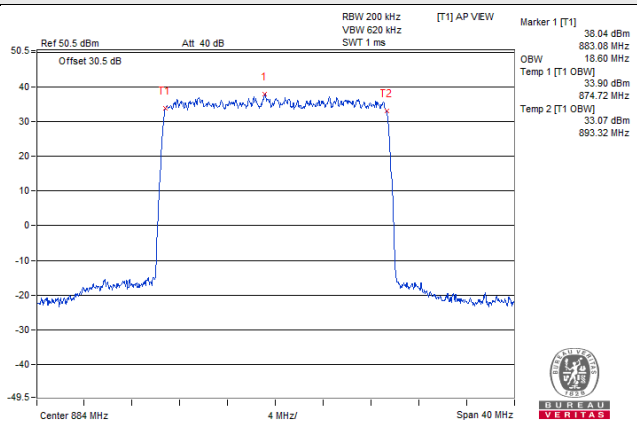
Channel: 175800



Channel: 176300

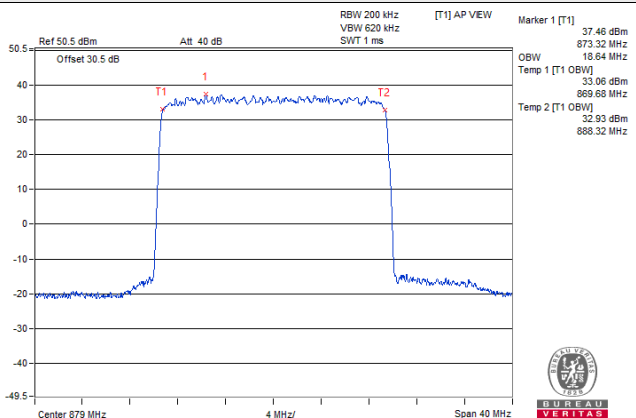


Channel: 176800

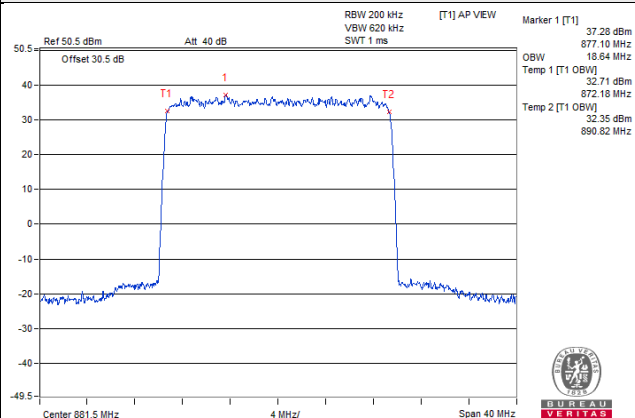


256QAM

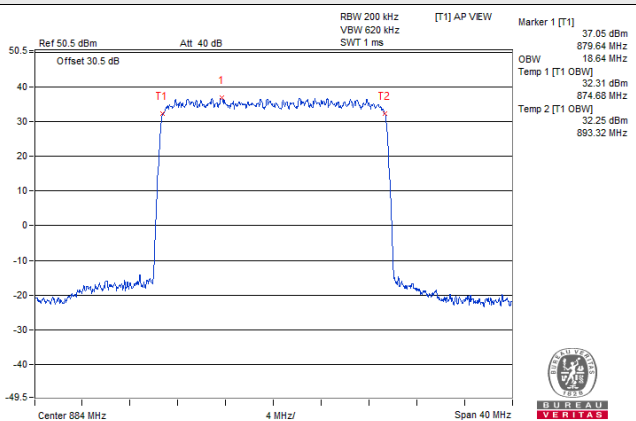
Channel: 175800



Channel: 176300



Channel: 176800



Contiguous Mode

5MHz+5MHz

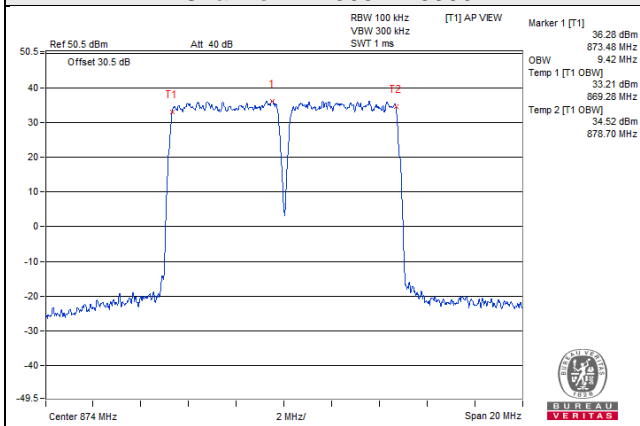
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174300+175300	871.5+876.5	9.42	9.44	9.44	9.42	9.42	9.42	9.42	9.42
175800+176800	879+884	9.44	9.42	9.44	9.42	9.40	9.44	9.44	9.38
177300+178300	886.5+891.5	9.42	9.44	9.44	9.40	9.42	9.44	9.44	9.42

Chain 0

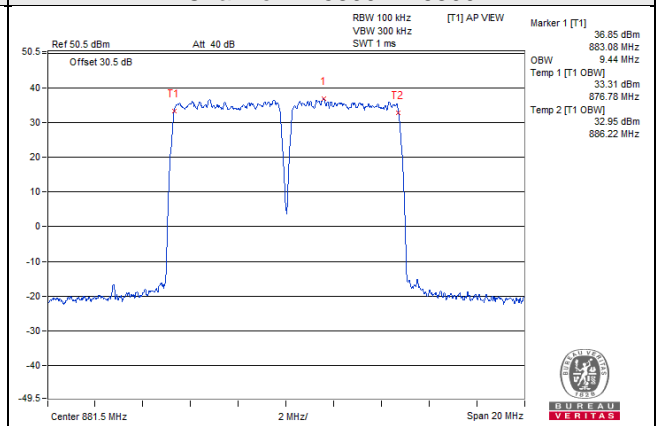
Spectrum Plot of Worst Value

QPSK

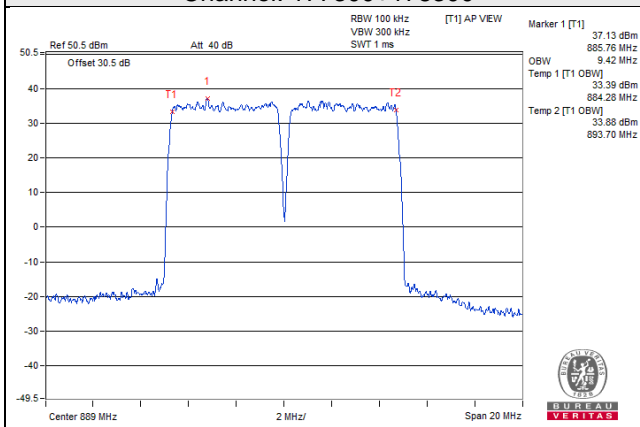
Channel: 174300+175300



Channel: 175800+176800

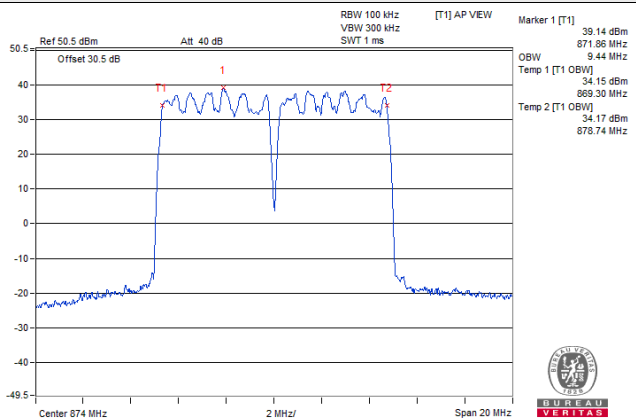


Channel: 177300+178300

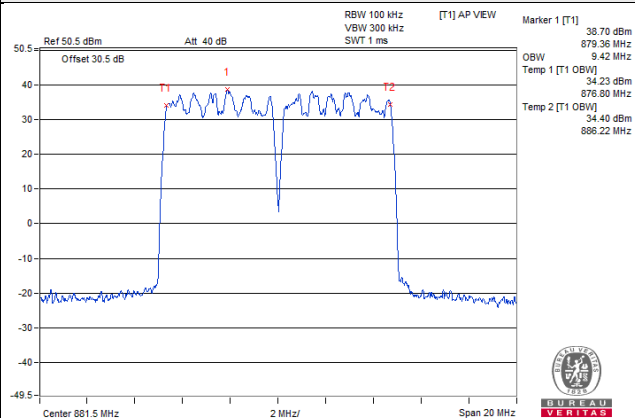


16QAM

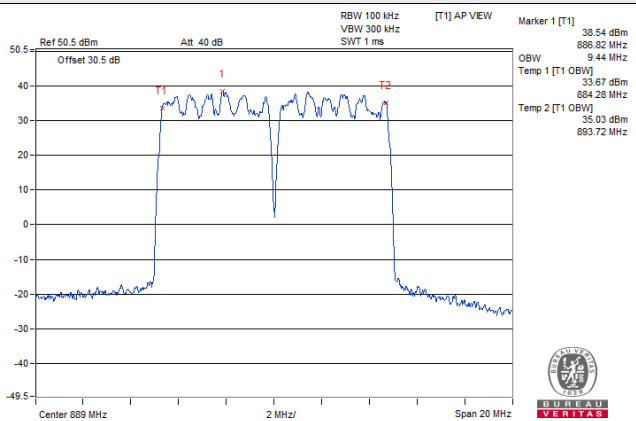
Channel: 174300+175300



Channel: 175800+176800

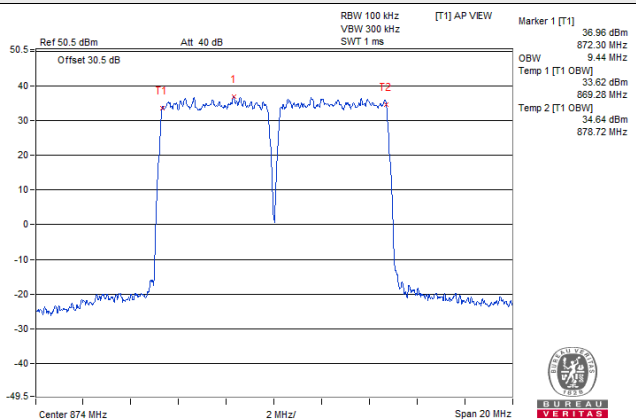


Channel: 177300+178300

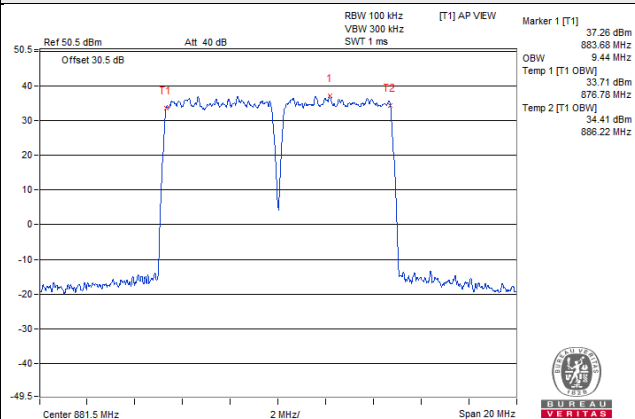


64QAM

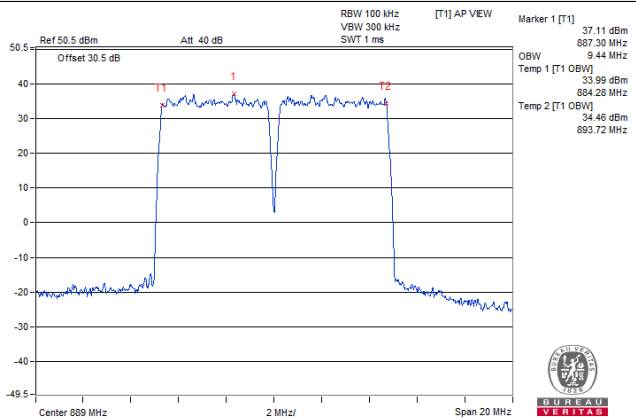
Channel: 175174300+175300800



Channel: 175800+176800

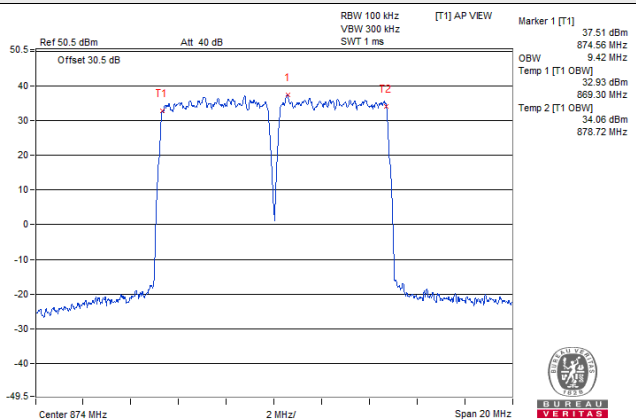


Channel: 177300+178300

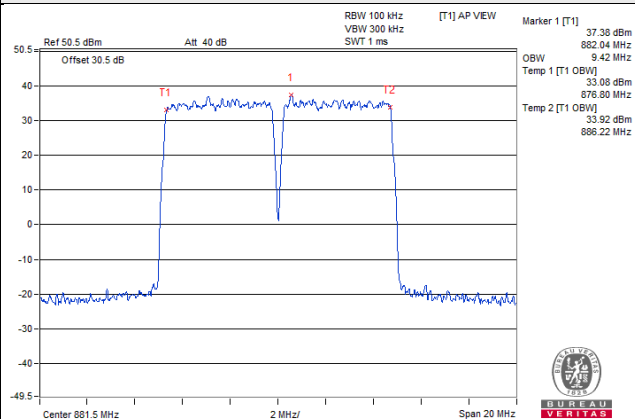


256QAM

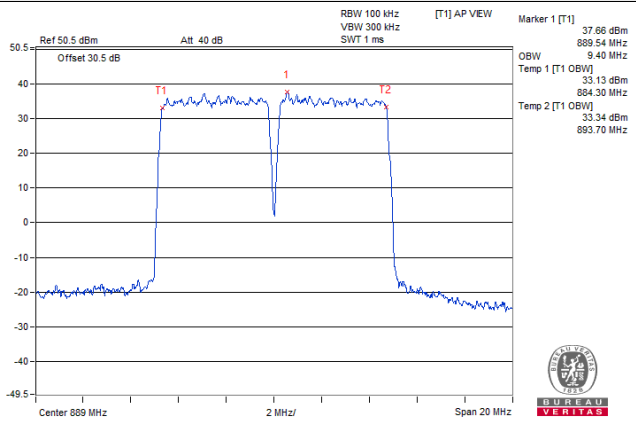
Channel: 174300+175300



Channel: 175800+176800



Channel: 177300+178300



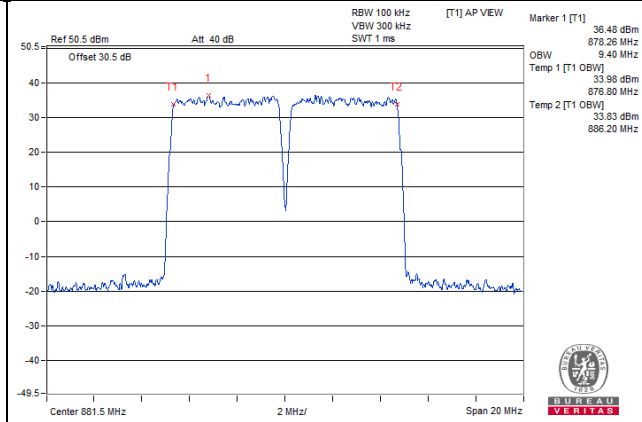
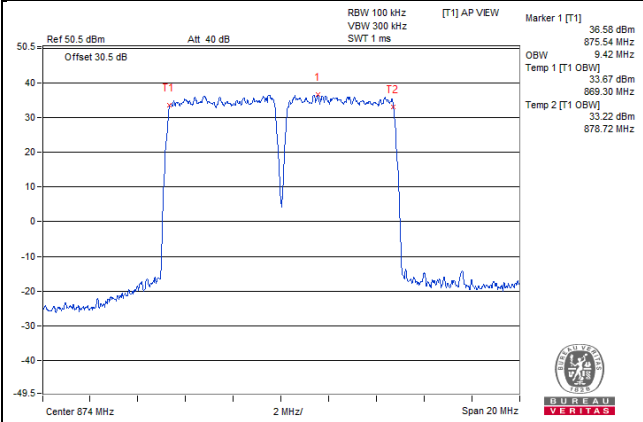
Chain 1

Spectrum Plot of Worst Value

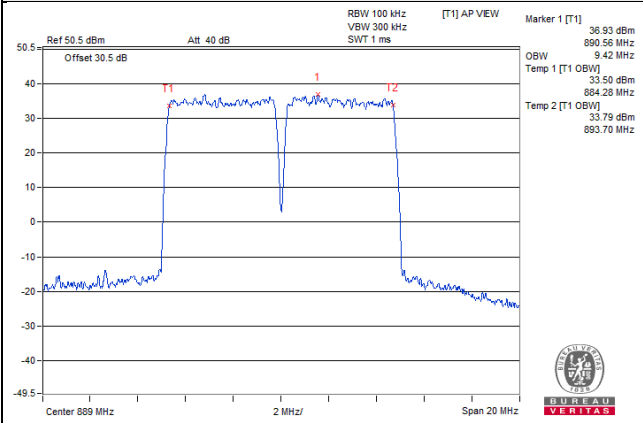
QPSK

Channel: 174300+175300

Channel: 175800+176800

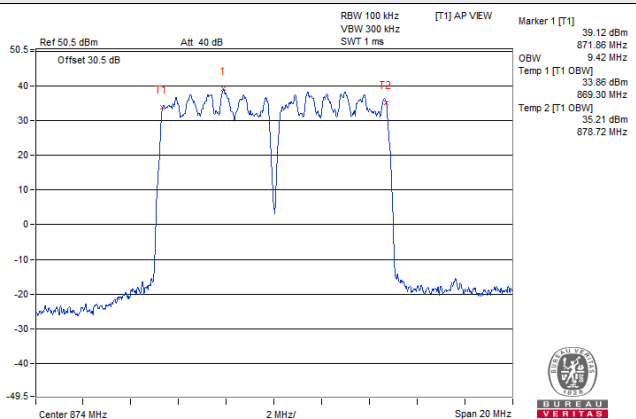


Channel: 177300+178300

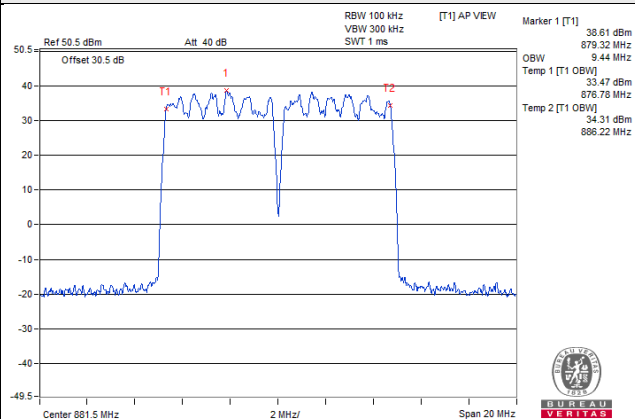


16QAM

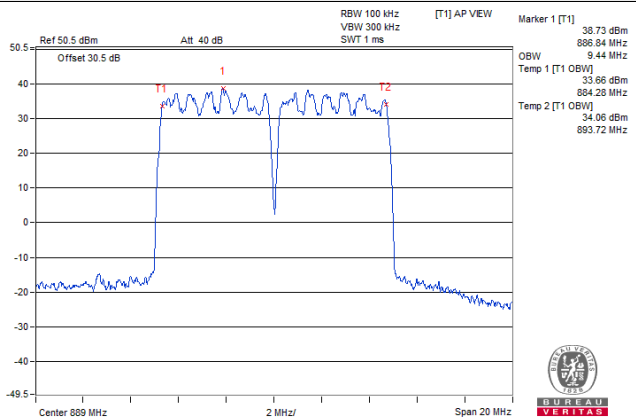
Channel: 174300+175300



Channel: 175800+176800

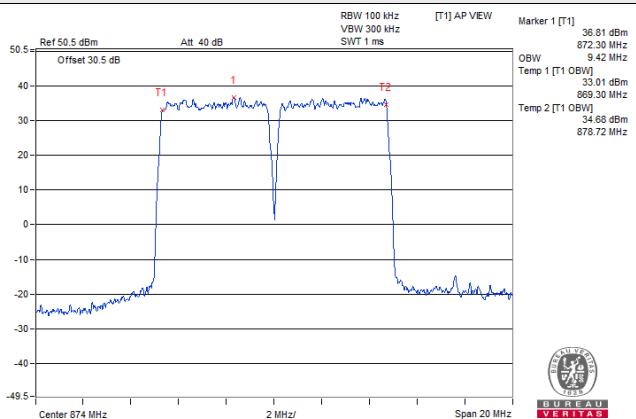


Channel: 177300+178300

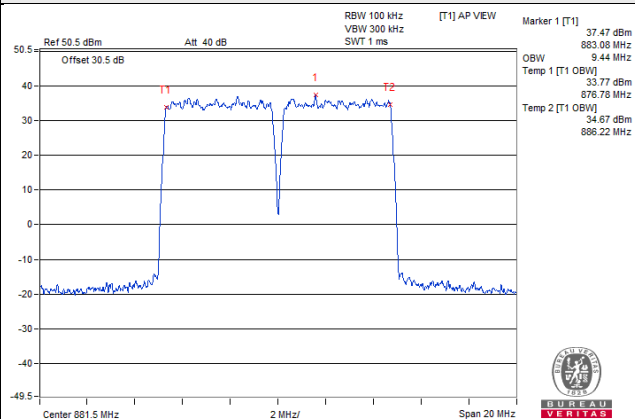


64QAM

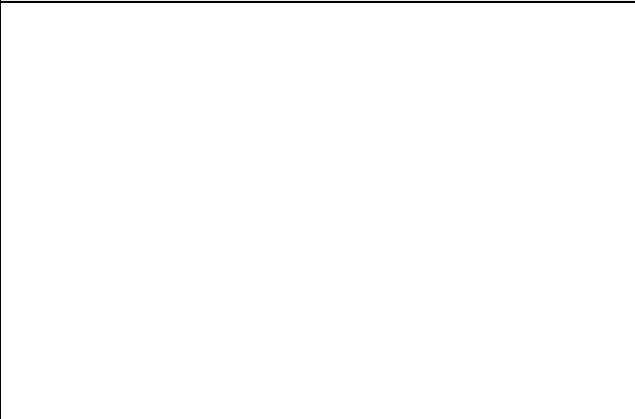
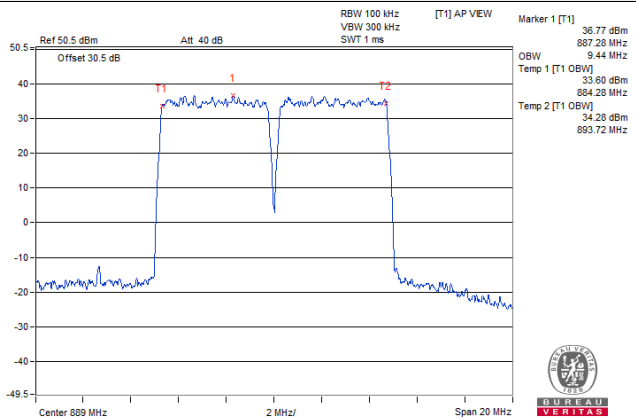
Channel: 174300+175300



Channel: 175800+176800

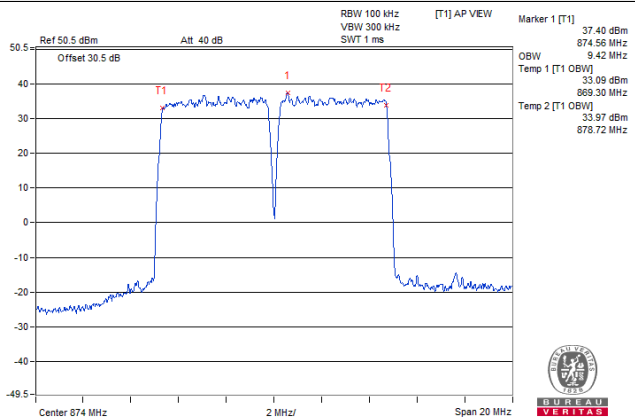


Channel: 177300+178300

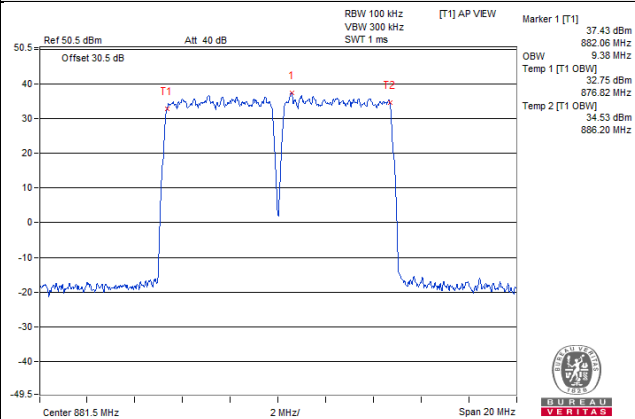


256QAM

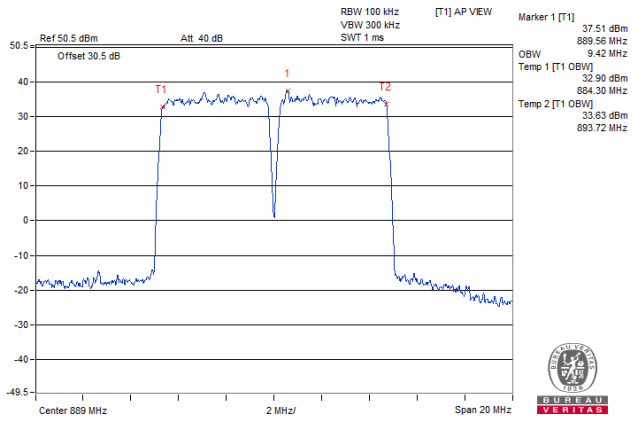
Channel: 174300+175300



Channel: 175800+176800



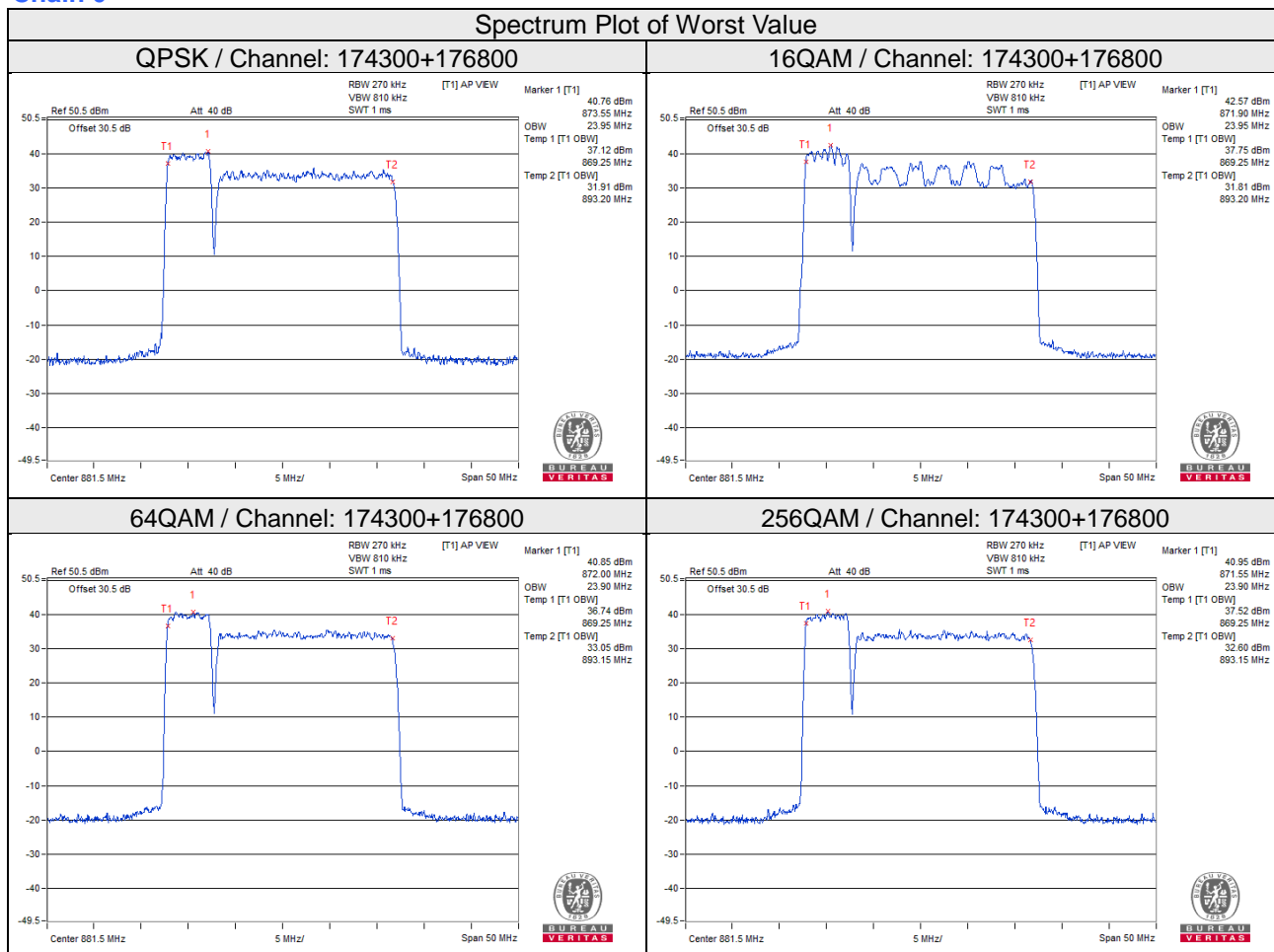
Channel: 177300+178300



5MHz+20MHz

Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174300+176800	871.5+884	23.95	23.95	23.90	23.90	23.95	23.95	23.90	23.90

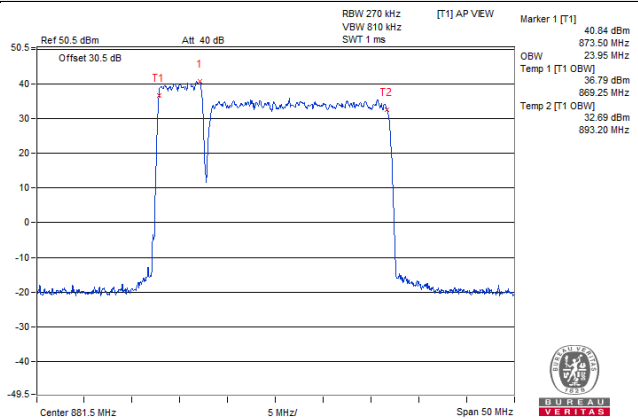
Chain 0



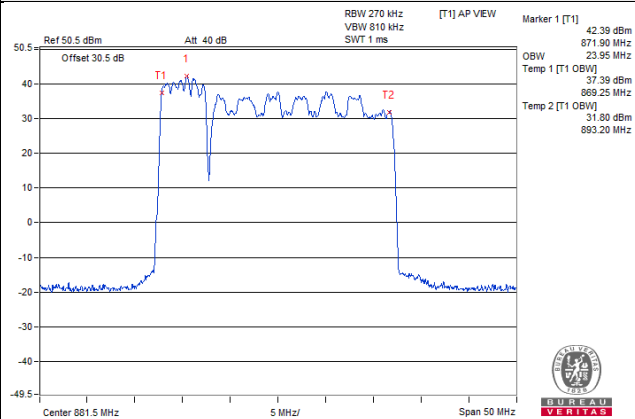
Chain 1

Spectrum Plot of Worst Value

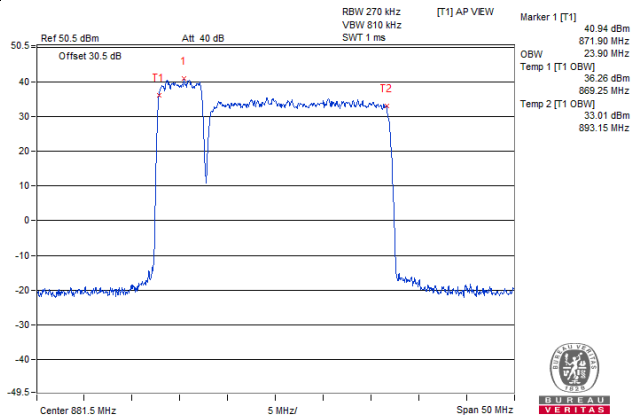
QPSK / Channel: 174300+176800



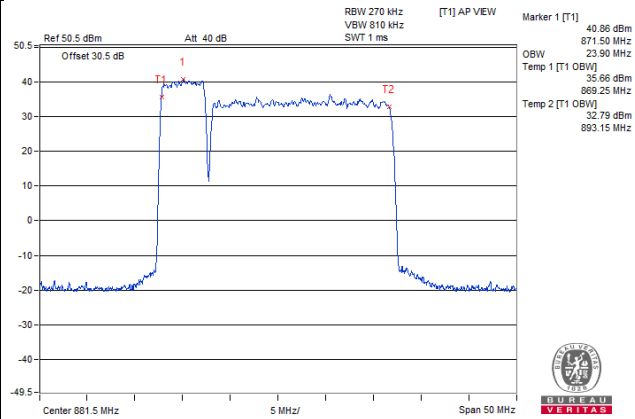
16QAM / Channel: 174300+176800



64QAM / Channel: 174300+176800



256QAM / Channel: 174300+176800



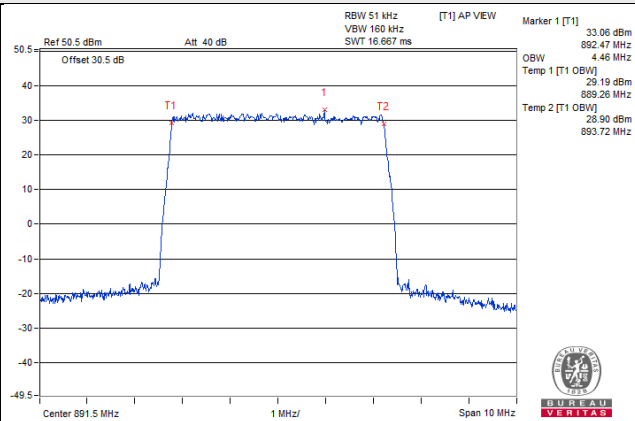
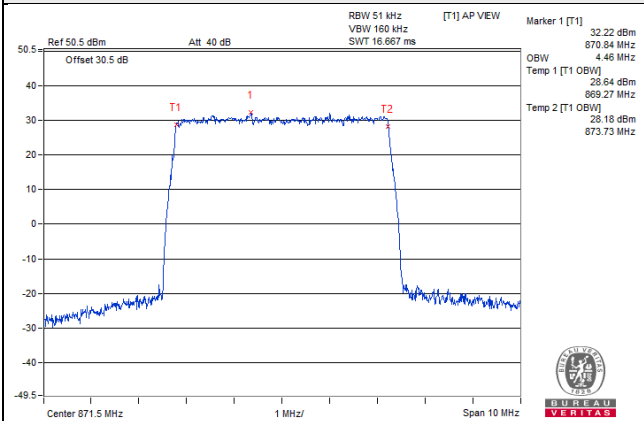
Non Contiguous Mode
5MHz+5MHz

Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain 0							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174300+178300	871.5+891.5	4.46	4.46	4.47	4.46	4.46	4.49	4.47	4.47
Channel Number	Freq. (MHz)	CC0+CC1 Total							
		QPSK		16QAM		64QAM		256QAM	
174300+178300	871.5+891.5	8.92		8.95		8.94		8.93	

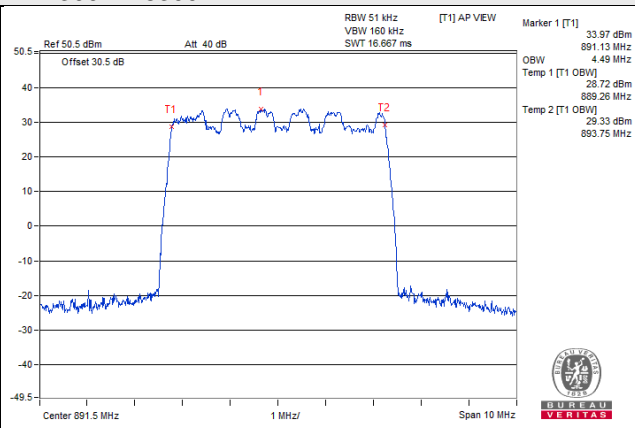
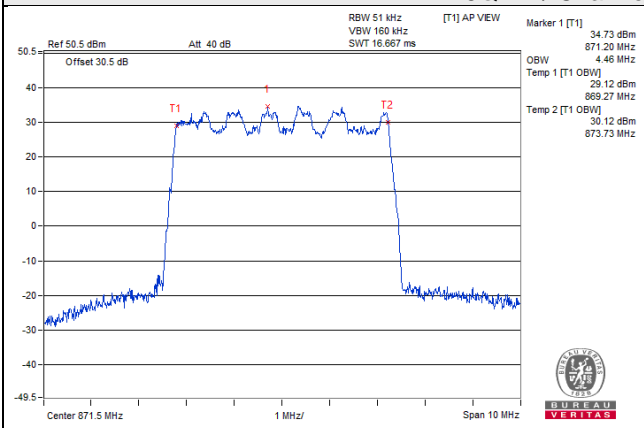
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain 1							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174300+178300	871.5+891.5	4.46	4.47	4.47	4.46	4.47	4.49	4.48	4.47
Channel Number	Freq. (MHz)	CC0+CC1 Total							
		QPSK		16QAM		64QAM		256QAM	
174300+178300	871.5+891.5	8.93		8.96		8.95		8.93	

Chain 0

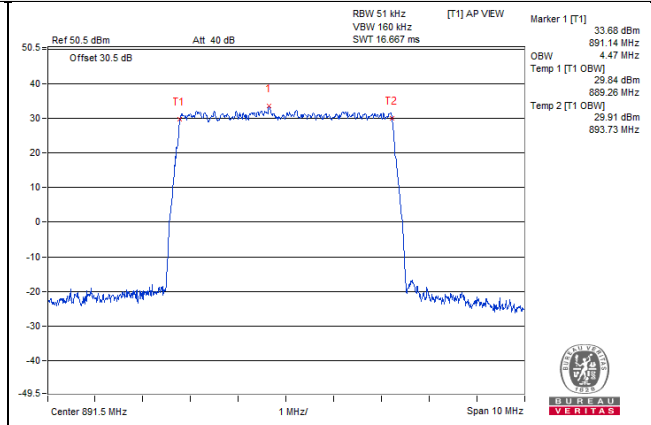
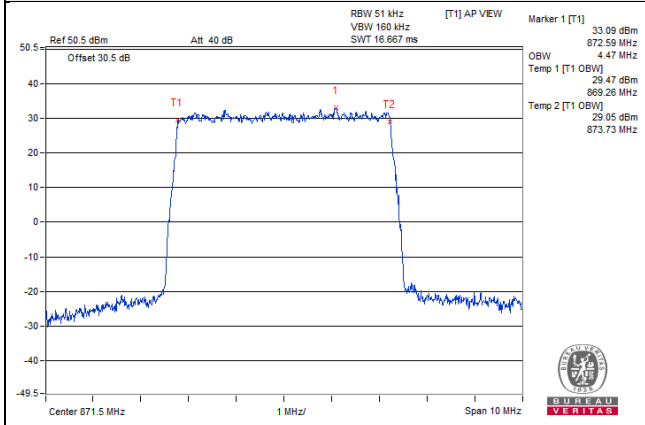
Spectrum Plot of Worst Value
QPSK / Channel: 174300+178300



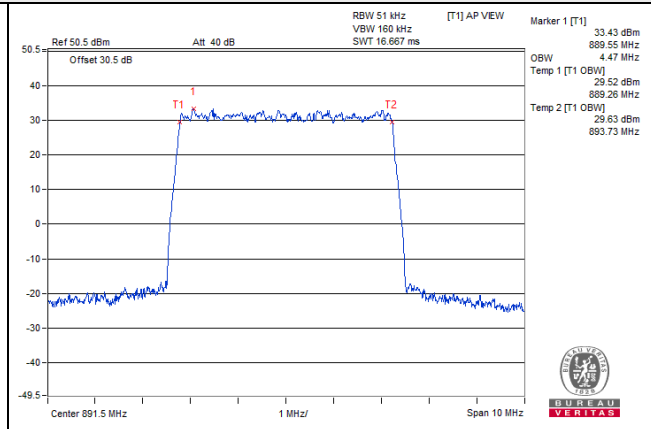
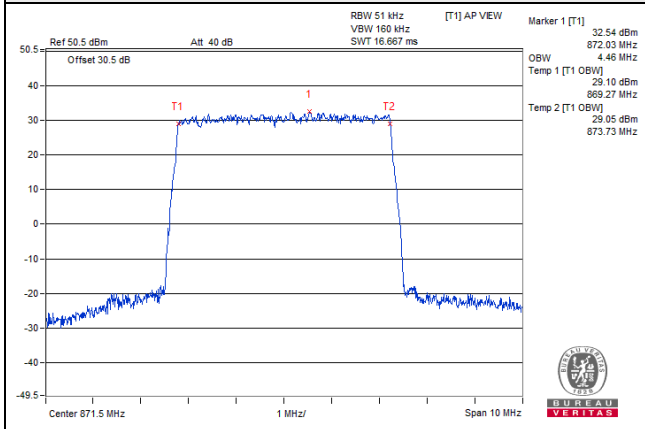
16QAM / Channel: 174300+178300



64QAM / Channel: 174300+178300

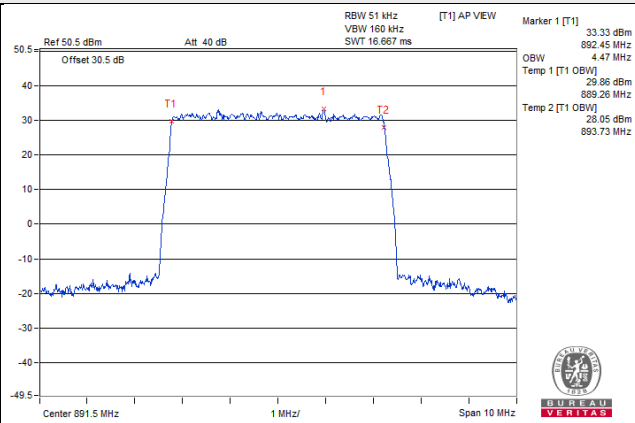
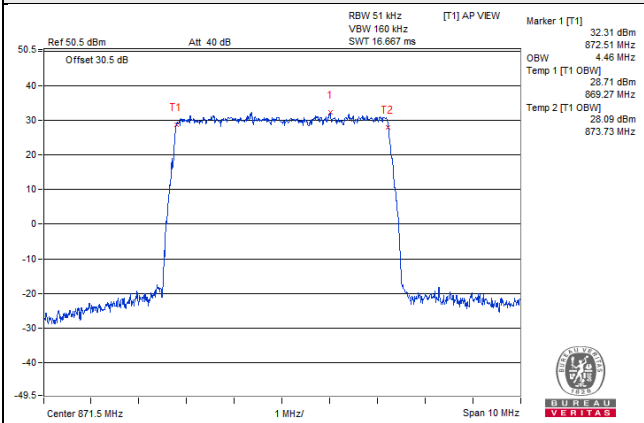


256QAM / Channel: 174300+178300

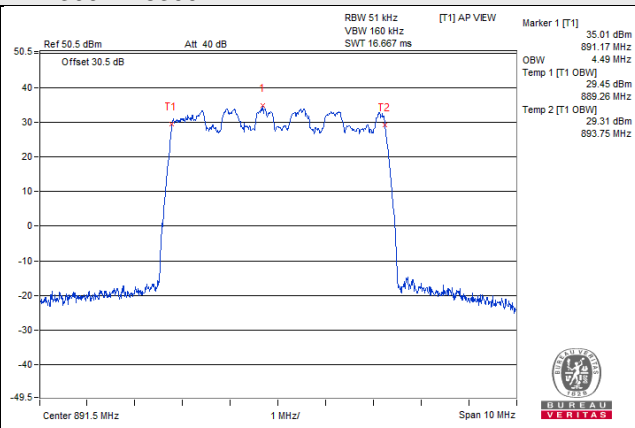
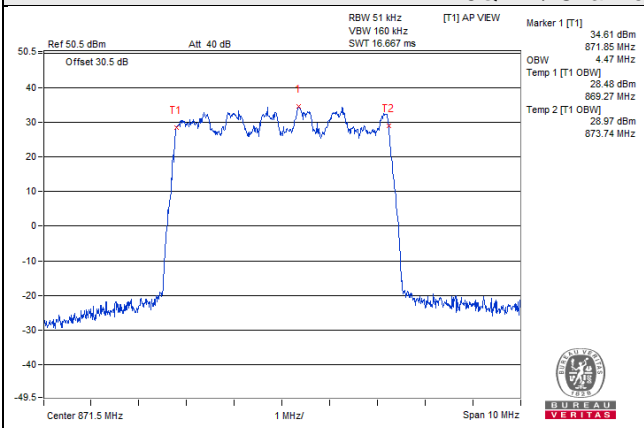


Chain 1

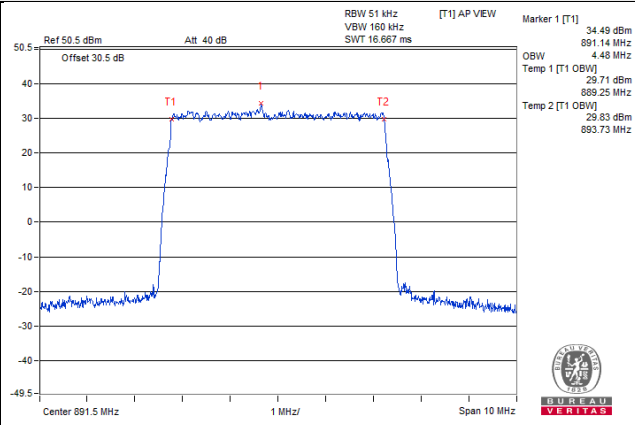
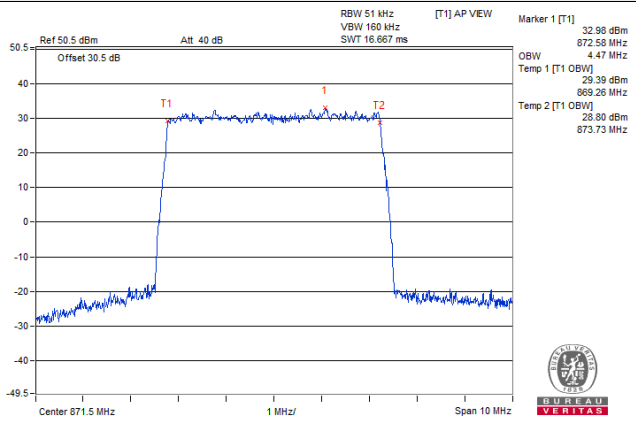
Spectrum Plot of Worst Value
QPSK / Channel: 174300+178300



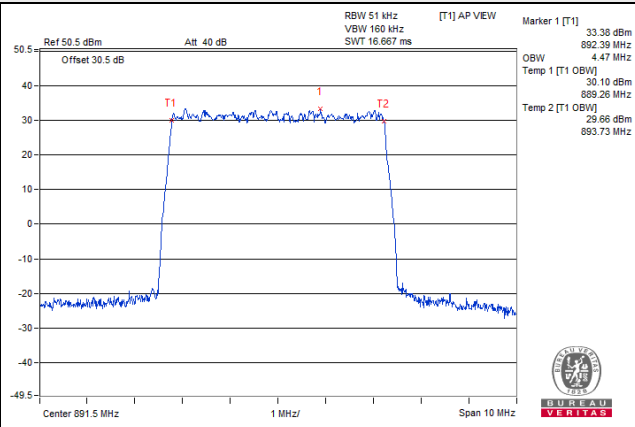
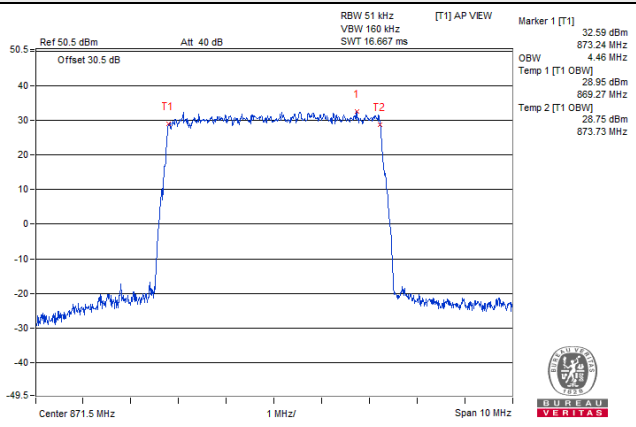
16QAM / Channel: 174300+178300



64QAM / Channel: 174300+178300



256QAM / Channel: 174300+178300



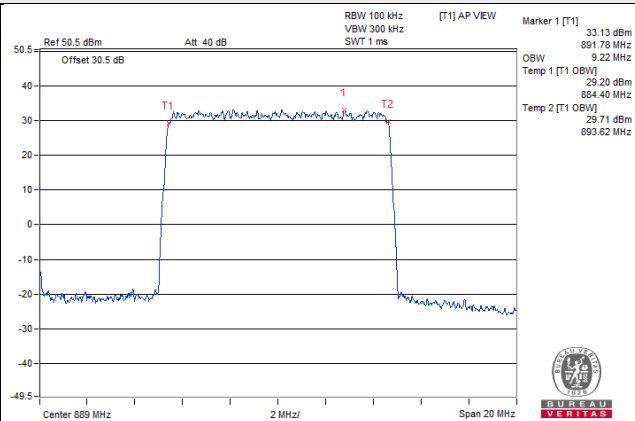
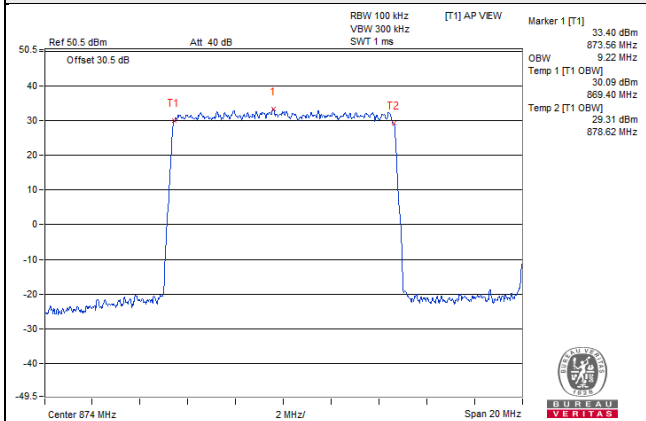
10MHz+10MHz

Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain 0							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+177800	874+889	9.22	9.14	9.22	9.20	9.22	9.14	9.20	9.24
Channel Number	Freq. (MHz)	CC0+CC1 Total							
		QPSK		16QAM		64QAM		256QAM	
174800+177800	874+889	18.44		18.28		18.42		18.44	

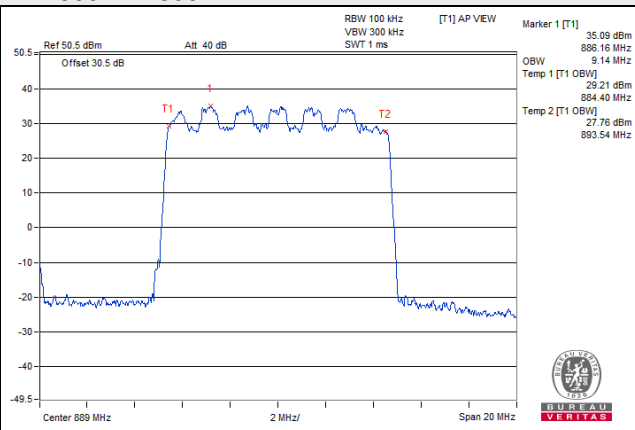
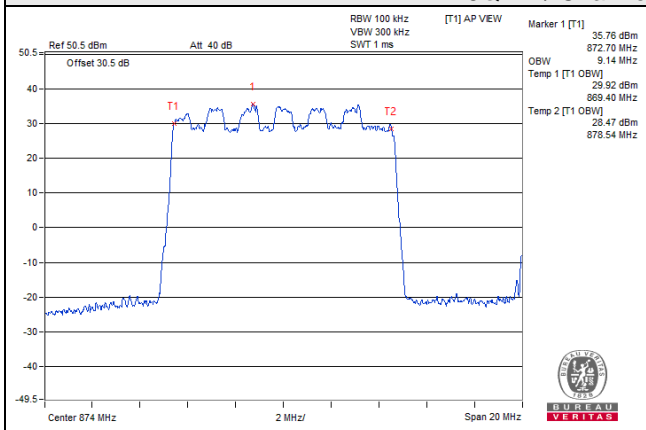
Channel Number	Freq. (MHz)	99% Occupied Bandwidth (MHz)							
		Chain 1							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+177800	874+889	9.22	9.14	9.20	9.20	9.22	9.14	9.20	9.24
Channel Number	Freq. (MHz)	CC0+CC1 Total							
		QPSK		16QAM		64QAM		256QAM	
174800+177800	874+889	18.44		18.28		18.40		18.44	

Chain 0

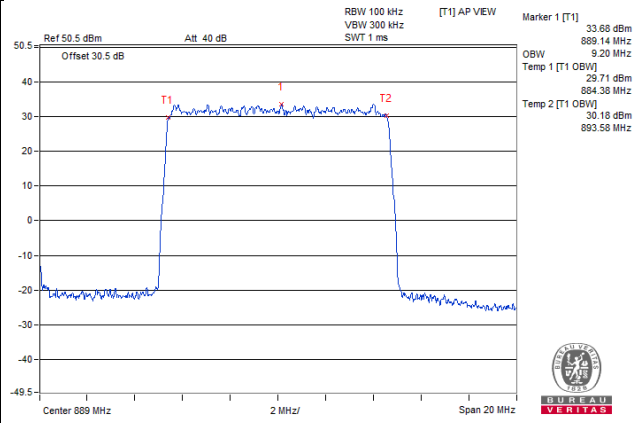
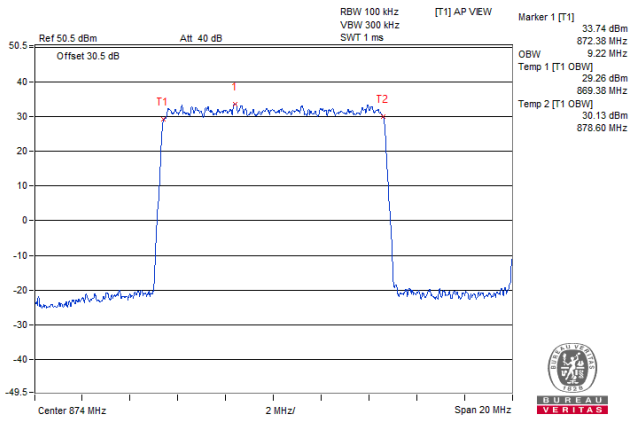
Spectrum Plot of Worst Value
QPSK / Channel: 174800+177800



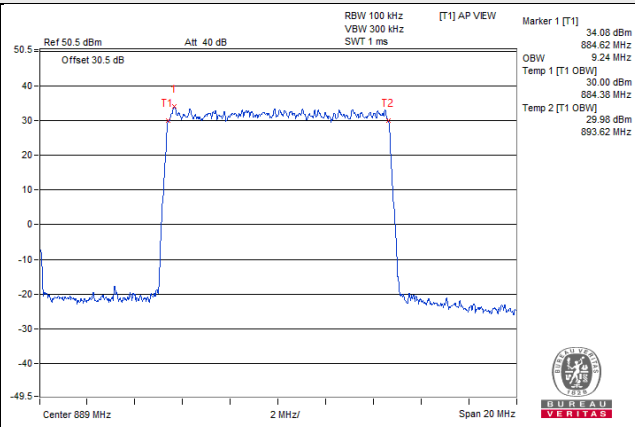
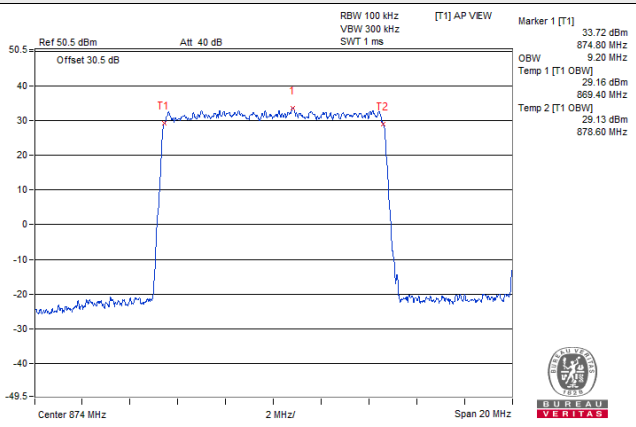
16QAM / Channel: 174800+177800



64QAM / Channel: 174800+177800

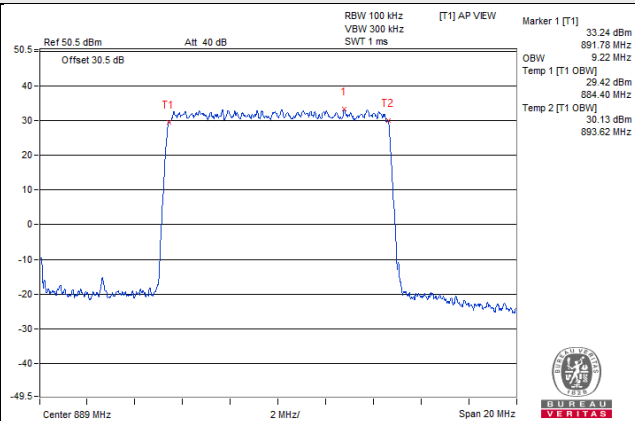
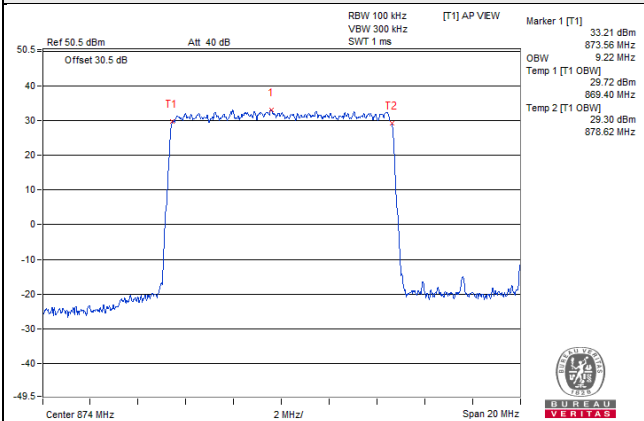


256QAM / Channel: 174800+177800

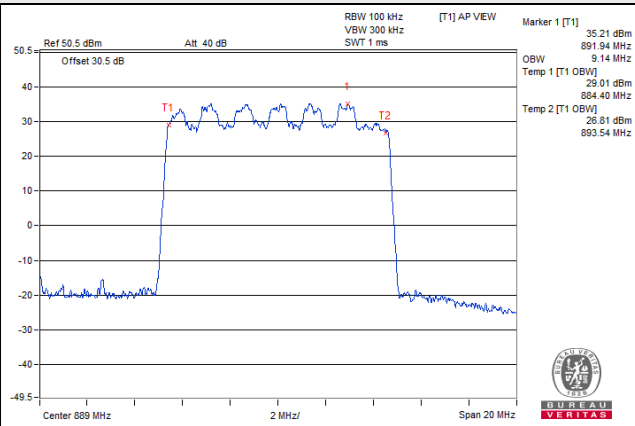
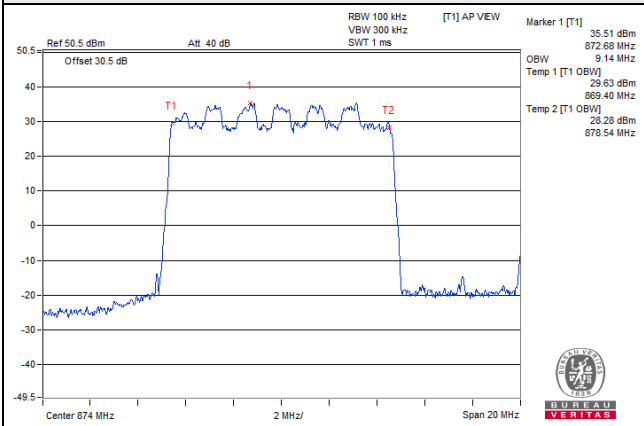


Chain 1

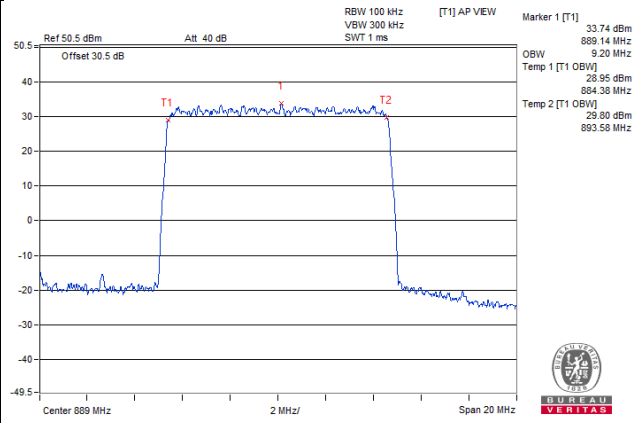
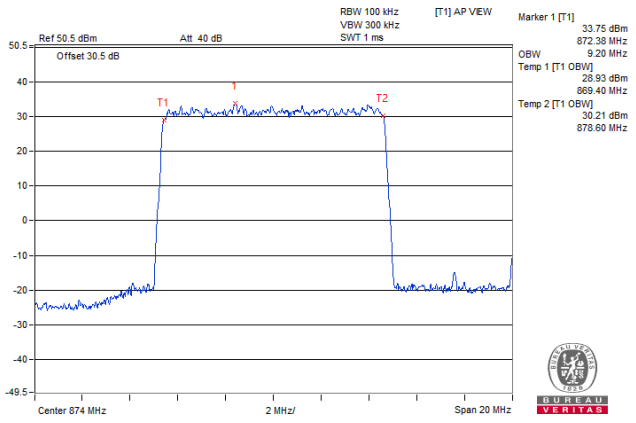
Spectrum Plot of Worst Value
QPSK / Channel: 174800+177800



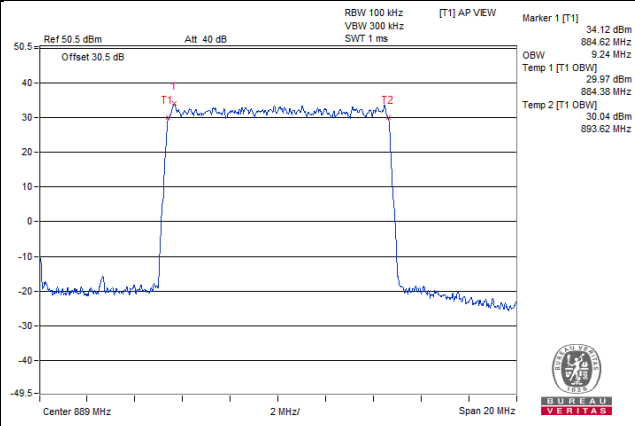
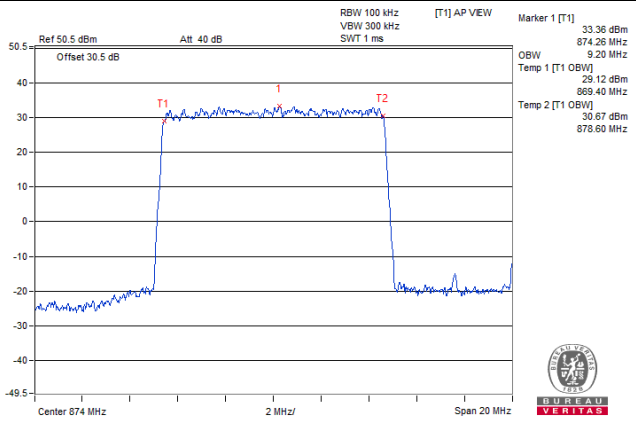
16QAM / Channel: 174800+177800



64QAM / Channel: 174800+177800



256QAM / Channel: 174800+177800

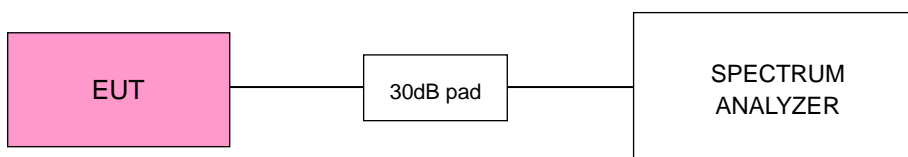


4.5 Channel Edge Measurement

4.5.1 Limits of Band Edge Measurement

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.5.2 Test Setup



4.5.3 Test Procedures

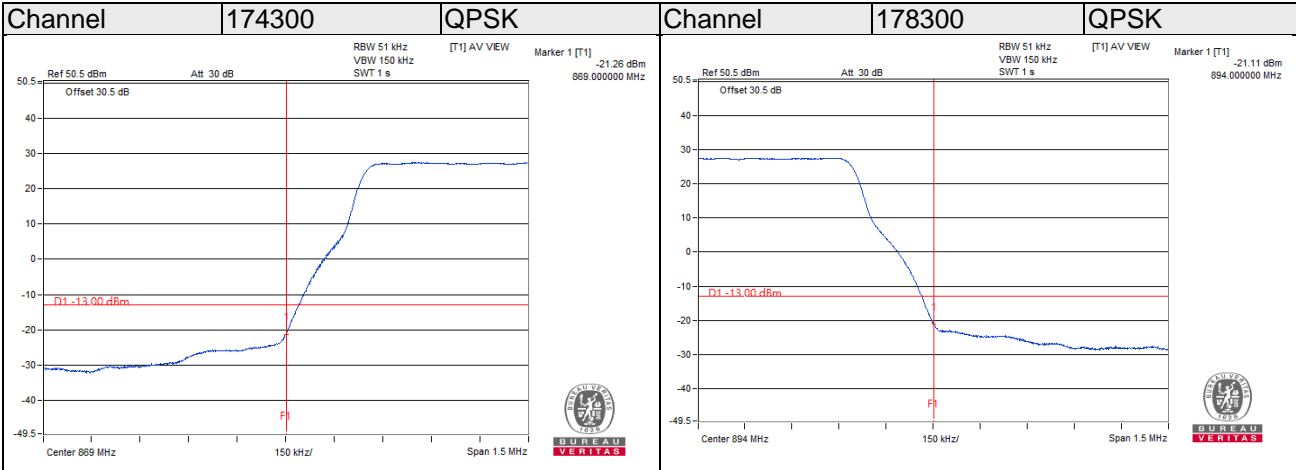
- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and RB of the spectrum is $>1\%$ Emission Bandwidth and VB of the spectrum is $\geq 3*RB$.
- c. Record the max trace plot into the test report.

4.5.4 Test Results

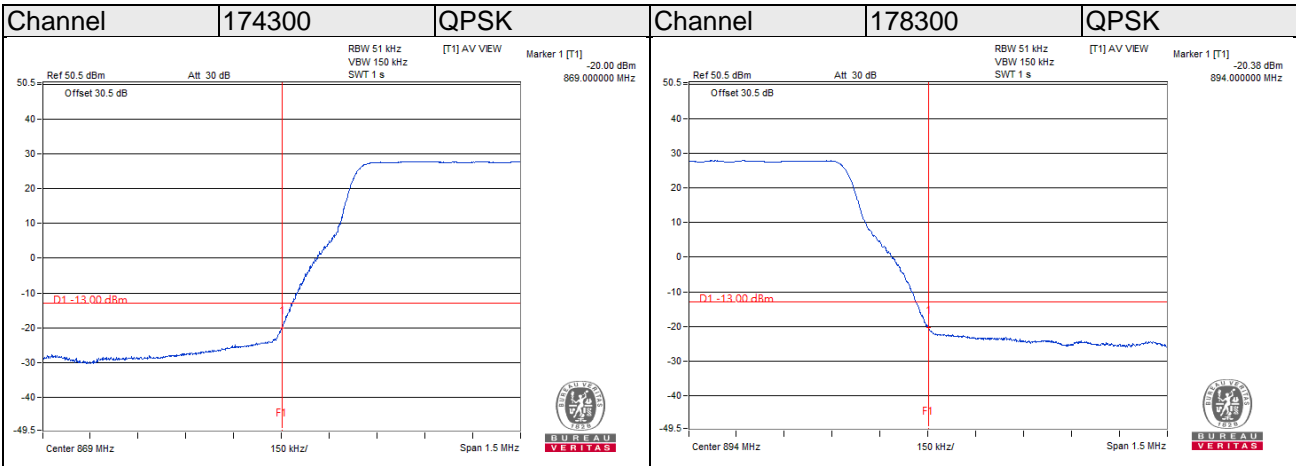
Single Mode

5MHz

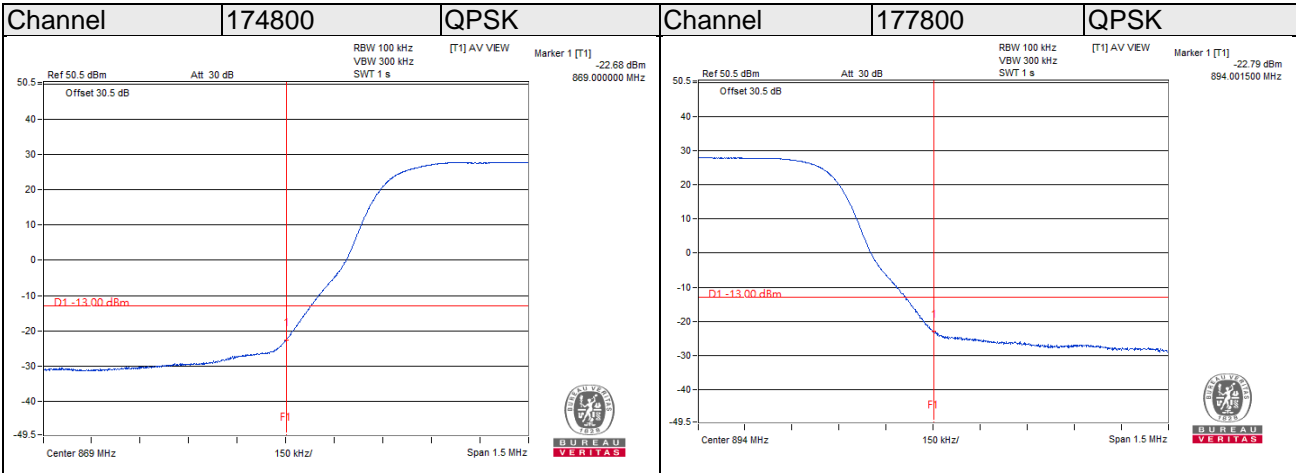
Chain 0



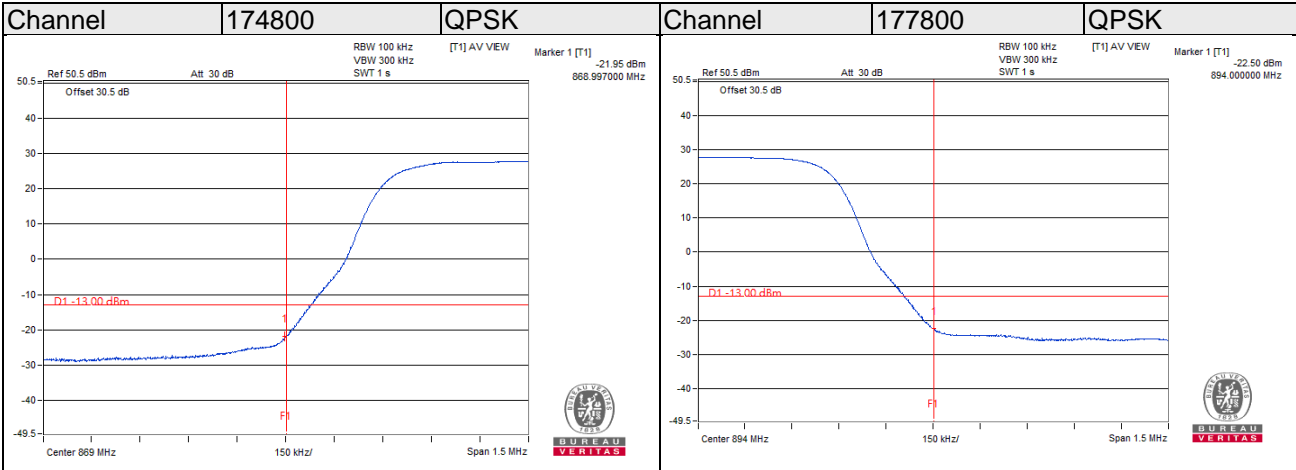
Chain 1



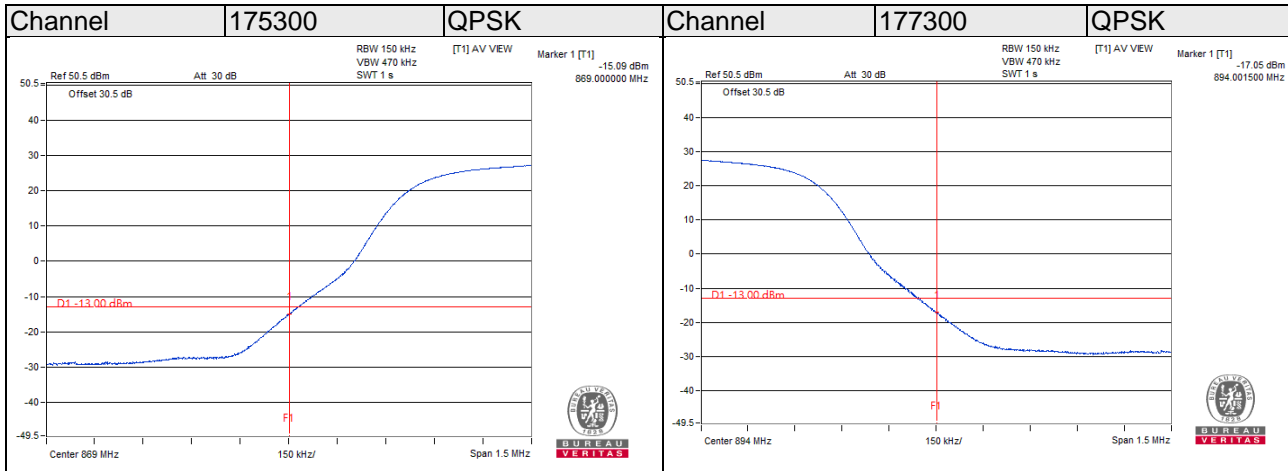
10MHz Chain 0



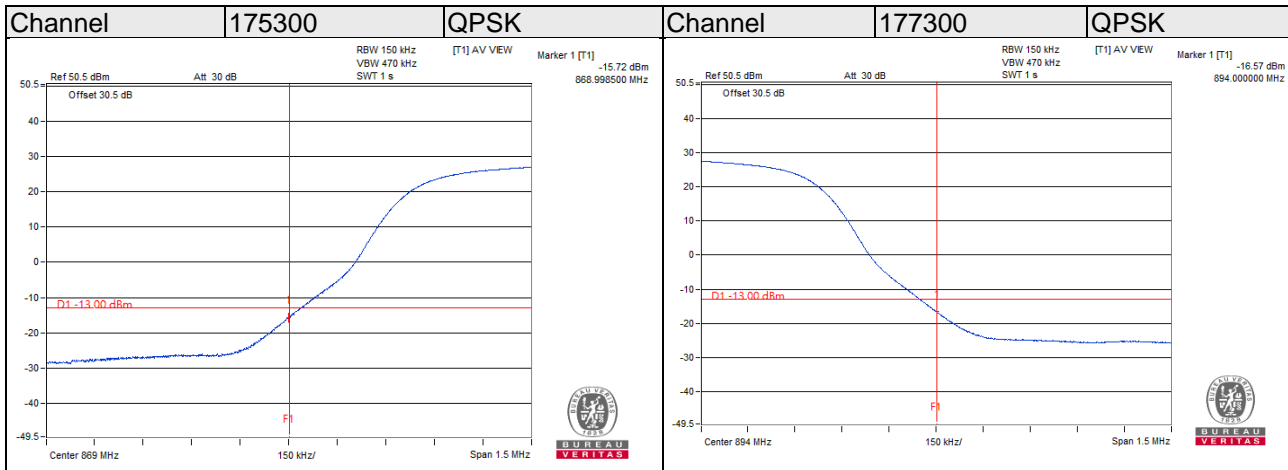
Chain 1



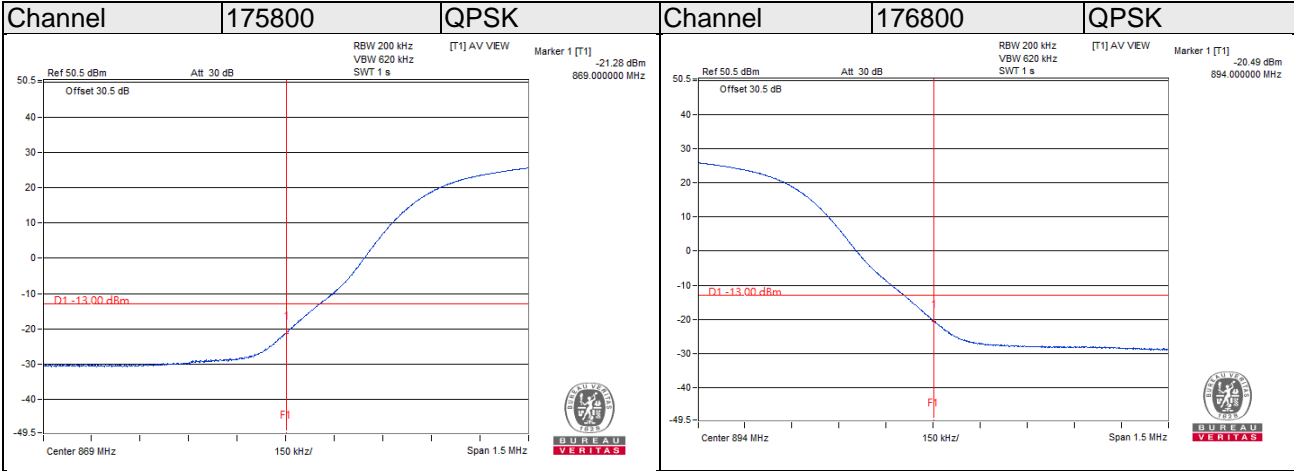
15MHz Chain 0



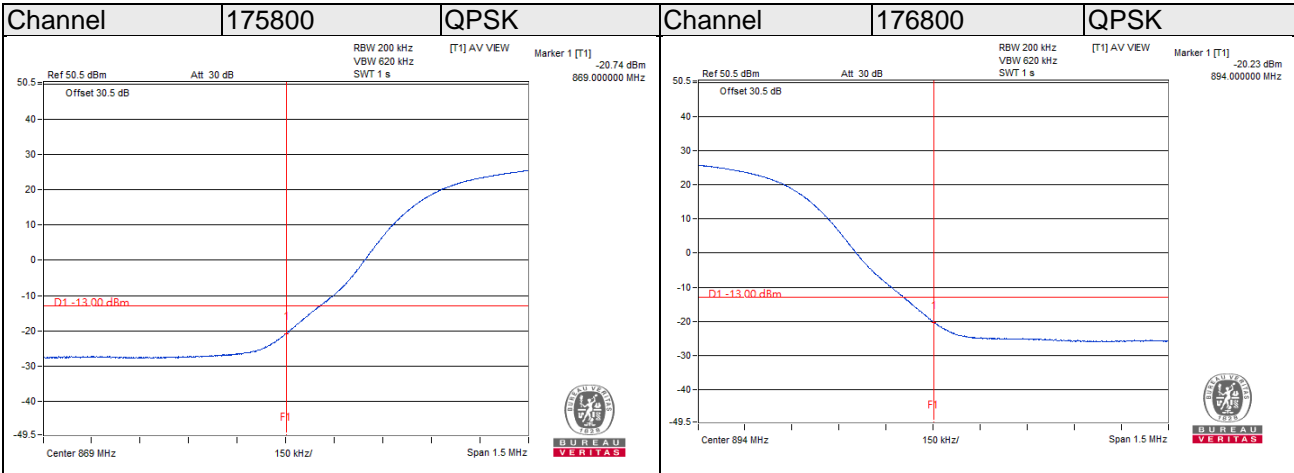
Chain 1



20MHz Chain 0

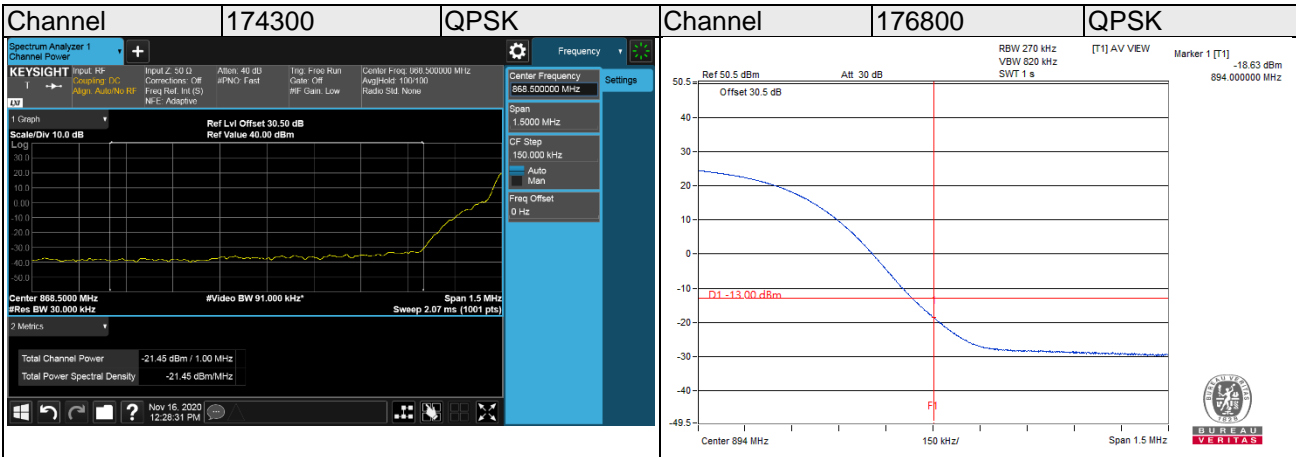


Chain 1

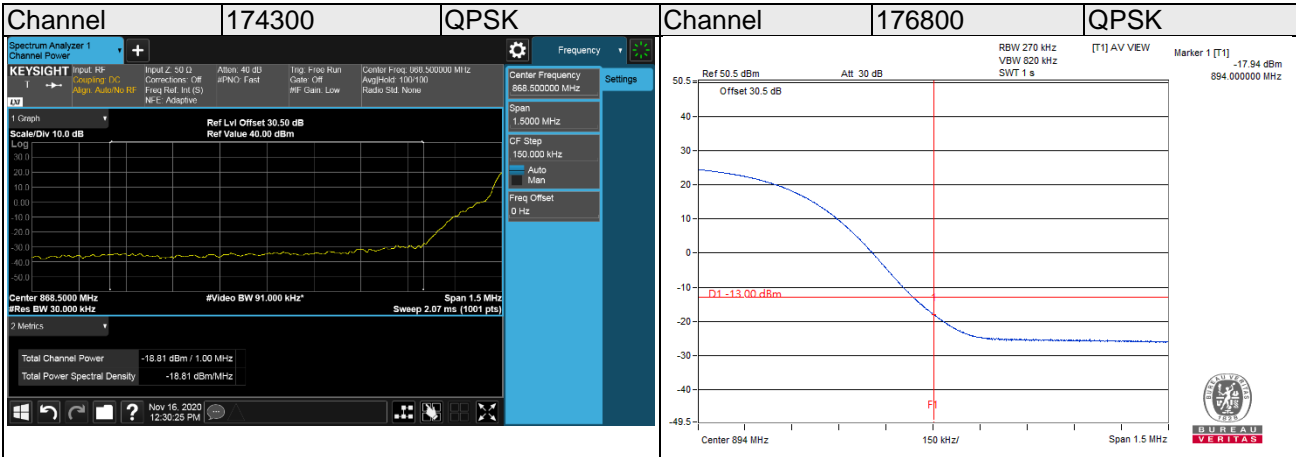


Contiguous Mode

5MHz+20MHz Chain 0

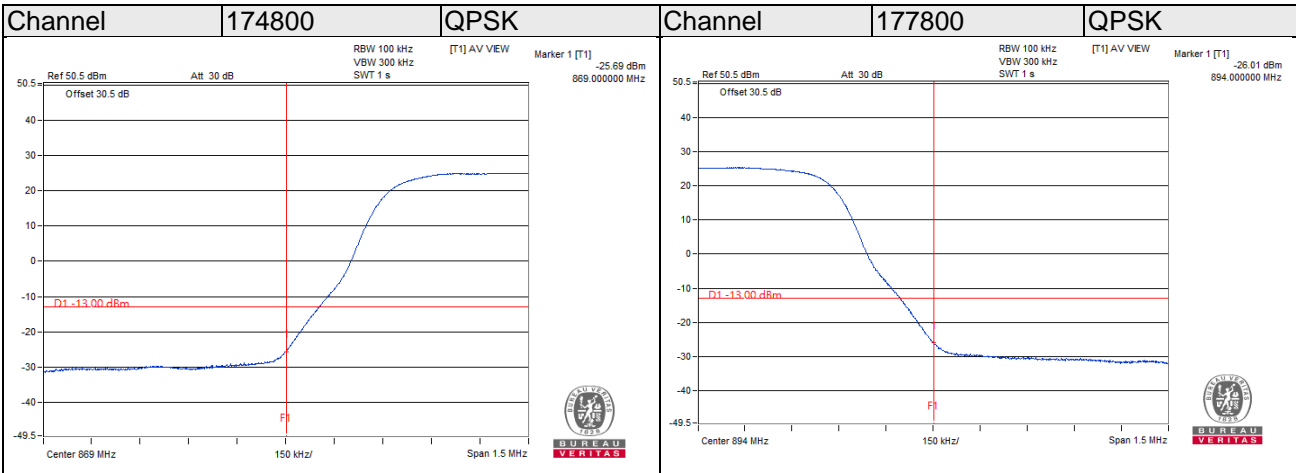


Chain 1

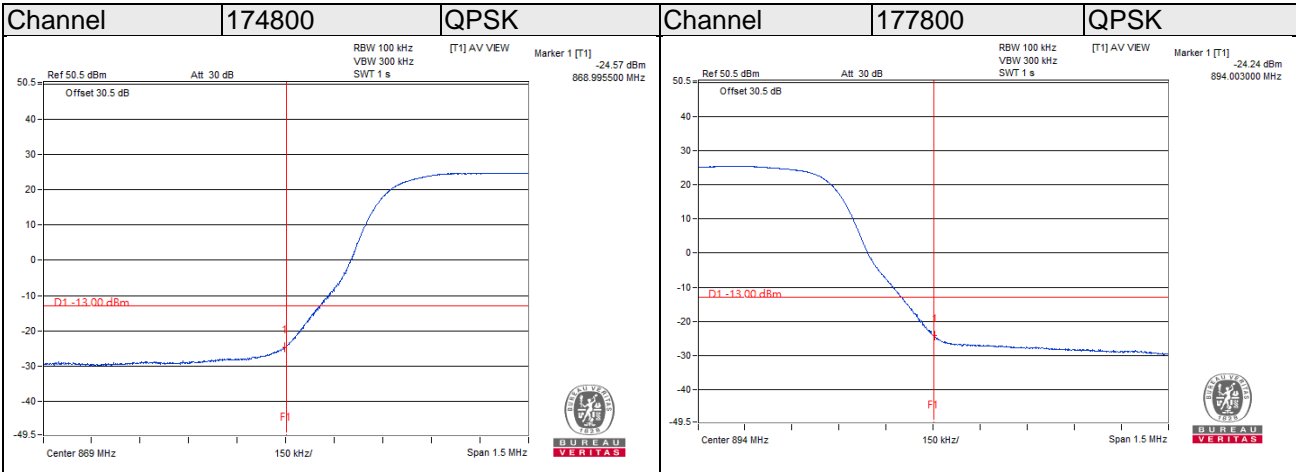


Non Contiguous Mode

10MHz+10MHz Chain 0



Chain 1

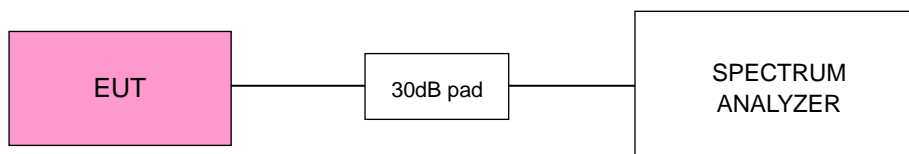


4.6 Peak to Average Ratio

4.6.1 Limits of Peak to Average Ratio Measurement

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.6.2 Test Setup



4.6.3 Test Procedures

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

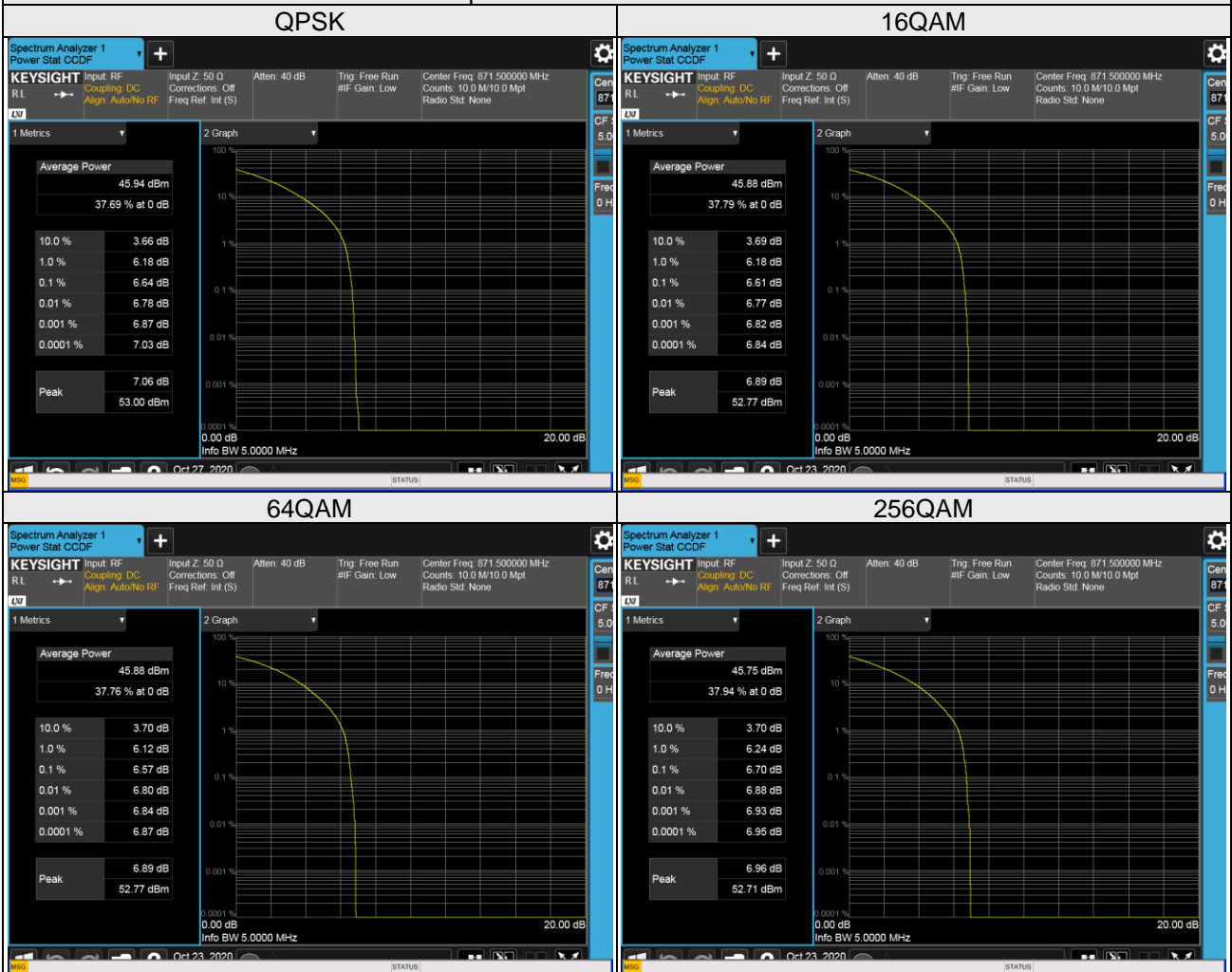
4.6.4 Test Results

Single Mode

5MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174300	871.5	6.58	6.54	6.52	6.62	6.64	6.61	6.57	6.70
176300	881.5	6.49	6.47	6.49	6.56	6.51	6.48	6.48	6.57
178300	891.5	6.53	6.49	6.51	6.59	6.54	6.50	6.50	6.58

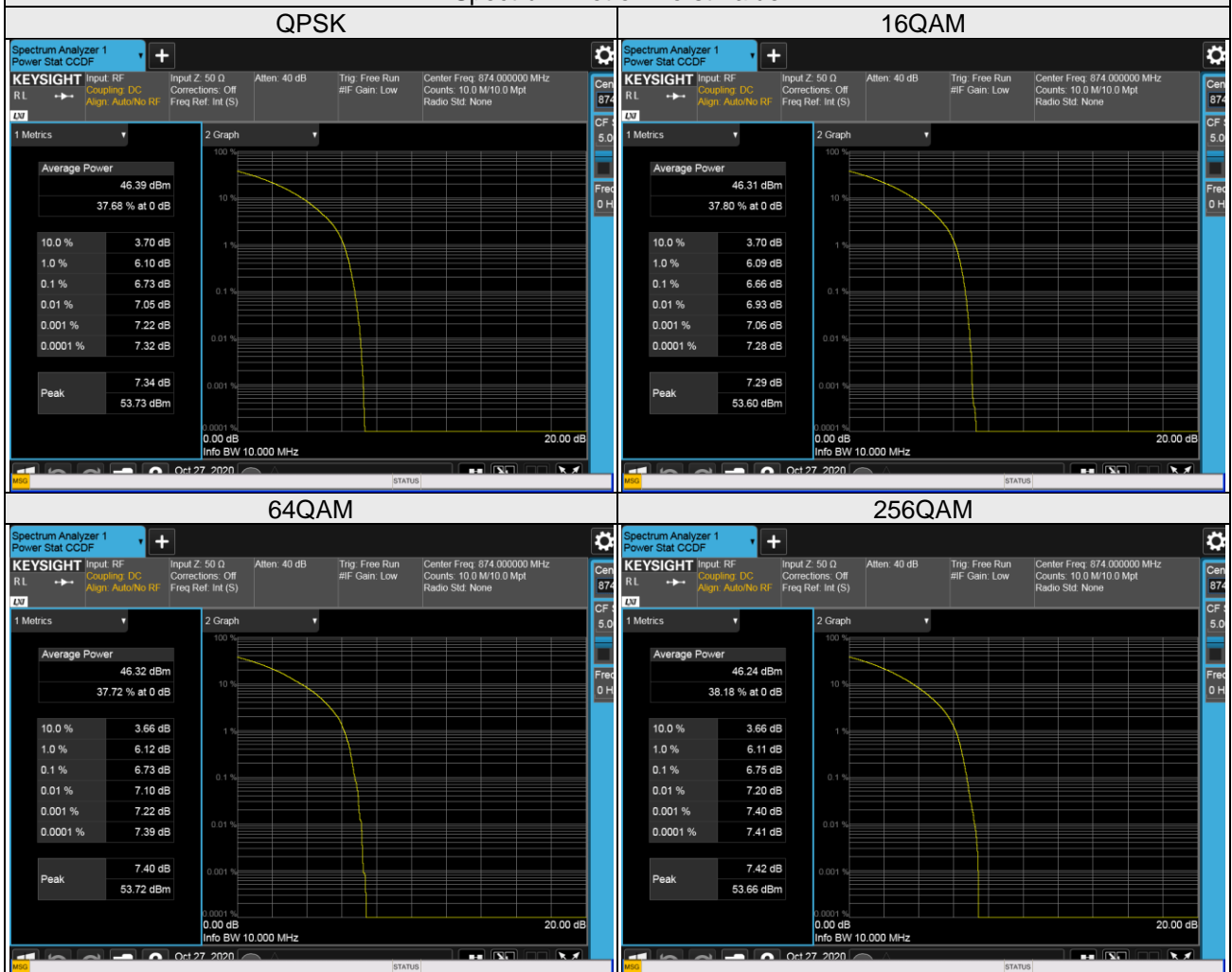
Spectrum Plot of Worst Value



10MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800	874	6.57	6.52	6.57	6.63	6.73	6.66	6.73	6.75
176300	881.5	6.37	6.37	6.38	6.44	6.40	6.38	6.39	6.46
177800	889	6.44	6.45	6.40	6.50	6.41	6.41	6.39	6.48

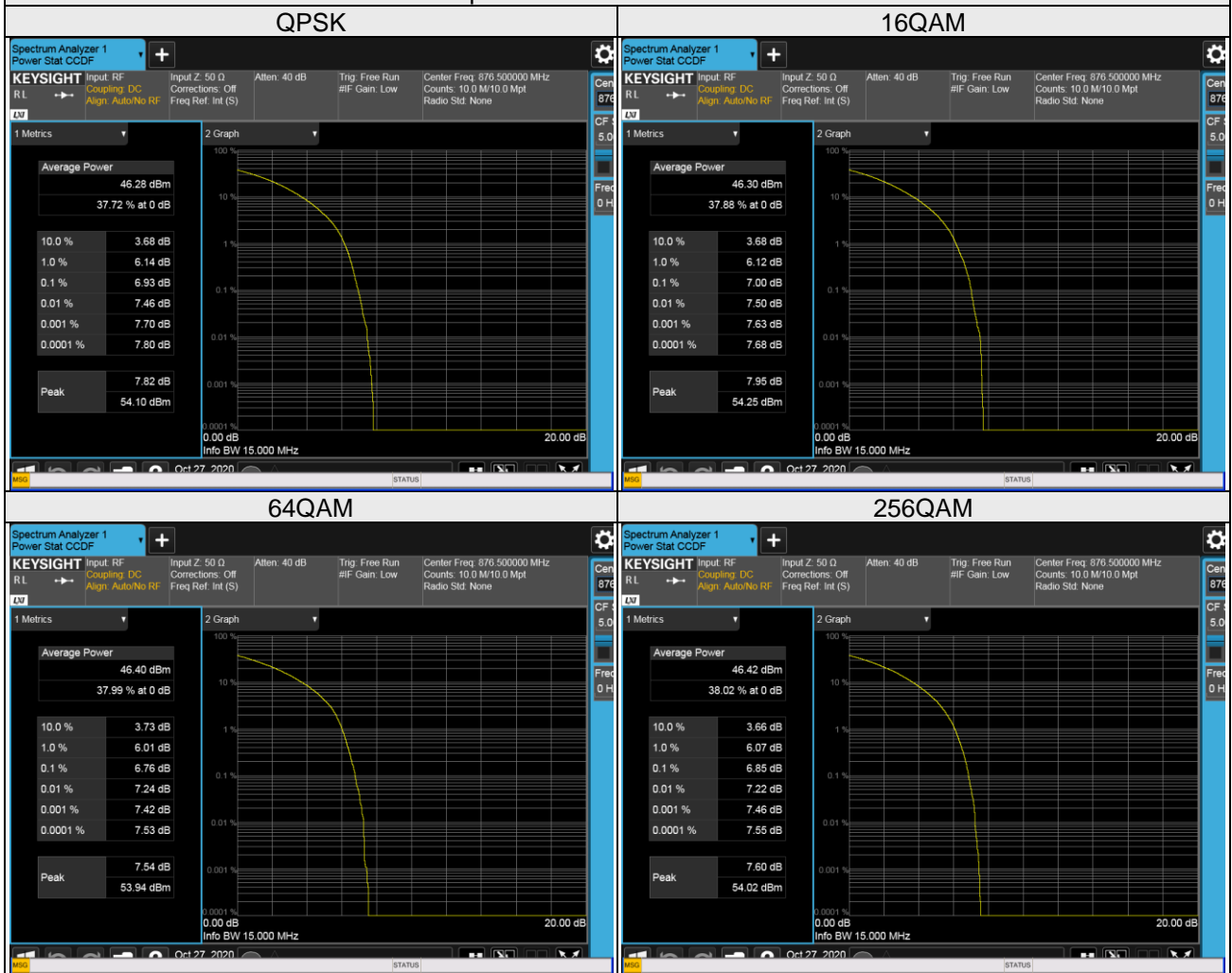
Spectrum Plot of Worst Value



15MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
175300	876.5	6.72	6.73	6.58	6.64	6.93	7.00	6.76	6.85
176300	881.5	6.44	6.47	6.45	6.41	6.53	6.59	6.51	6.48
177300	886.5	6.44	6.49	6.41	6.42	6.41	6.43	6.39	6.40

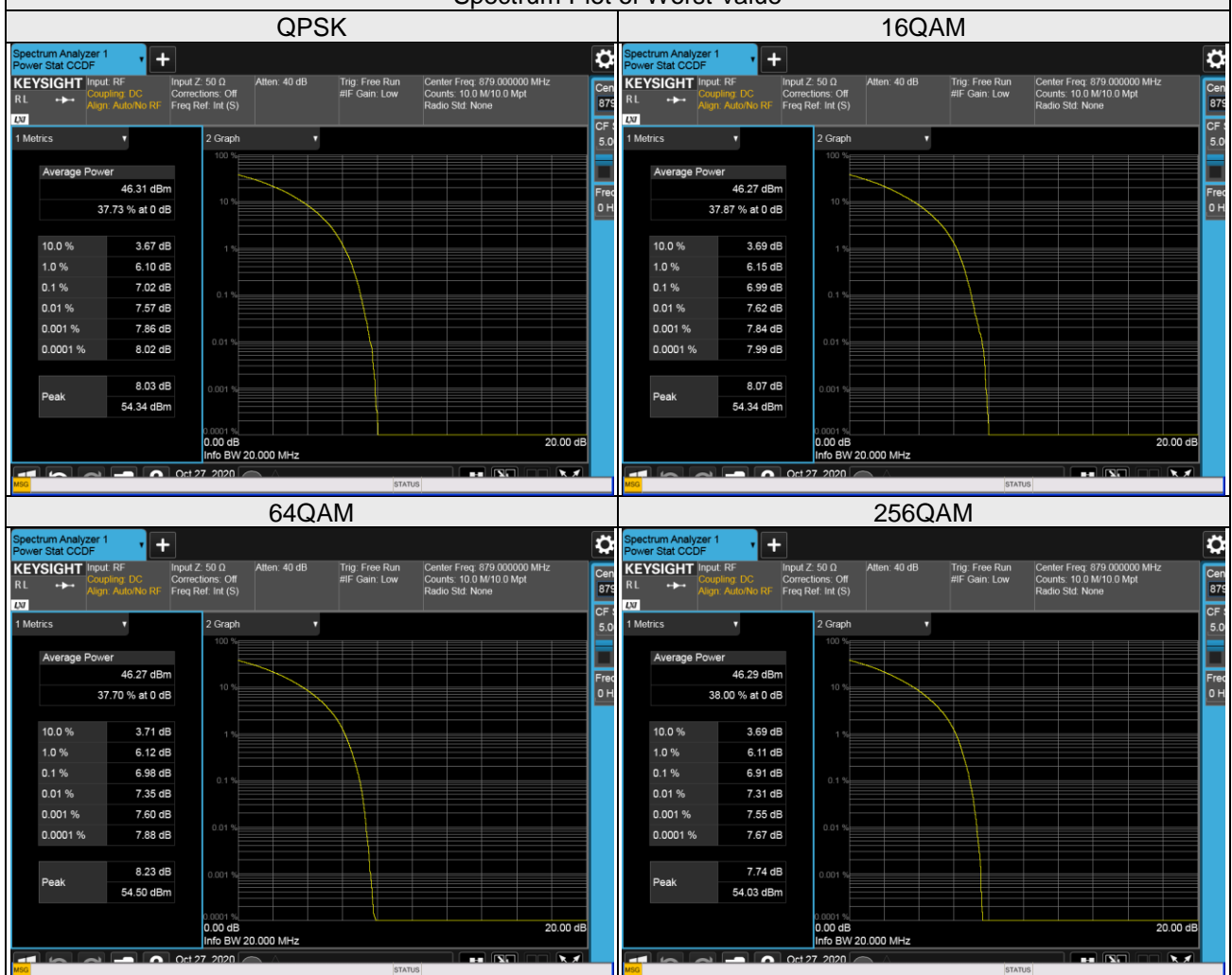
Spectrum Plot of Worst Value



20MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
175800	879	6.74	6.77	6.72	6.69	7.02	6.99	6.98	6.91
176300	881.5	6.52	6.55	6.52	6.52	6.68	6.69	6.66	6.63
176800	884	6.41	6.43	6.43	6.42	6.49	6.50	6.48	6.46

Spectrum Plot of Worst Value



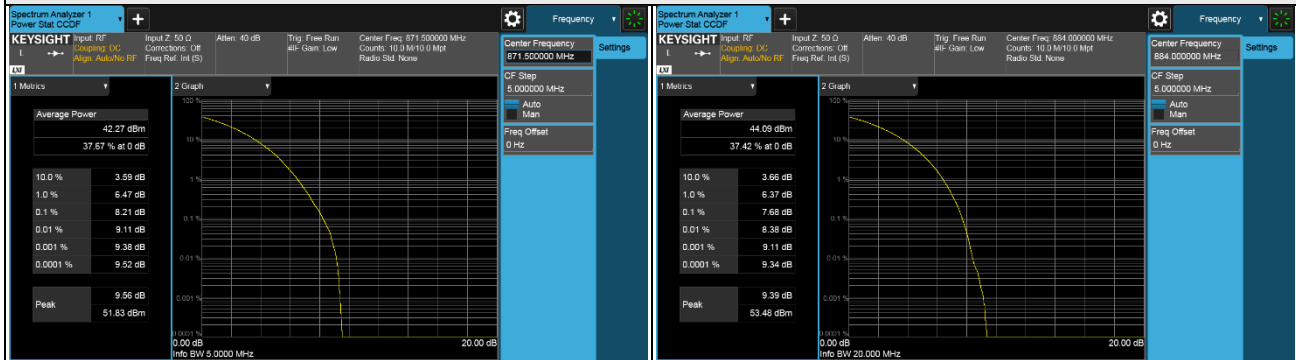
Contiguous Mode

5MHz+20MHz

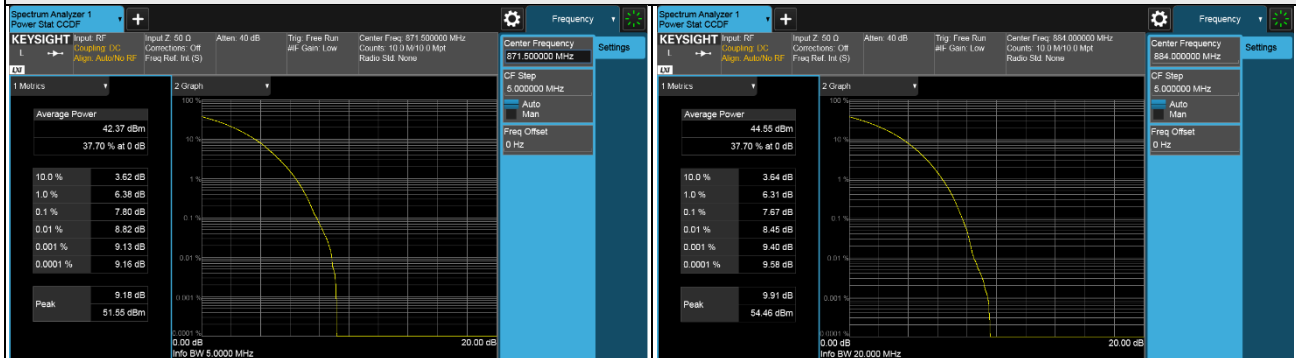
Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+176800	871.5+884	8.21	7.80	7.83	7.81	7.68	7.67	7.71	7.65

Spectrum Plot of Worst Value

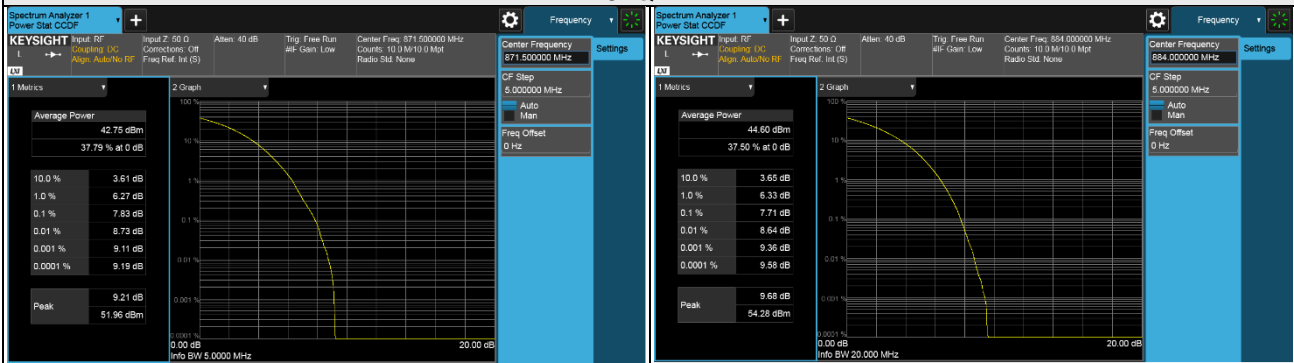
QPSK



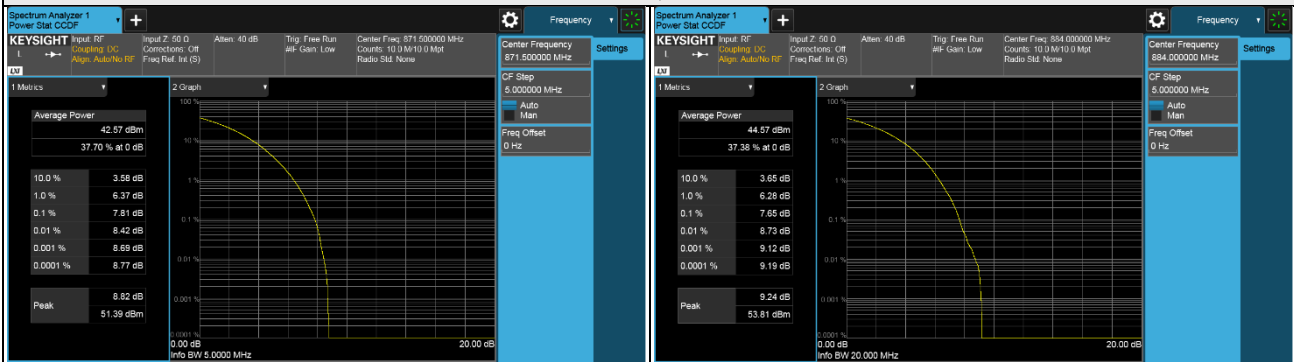
16QAM



64QAM



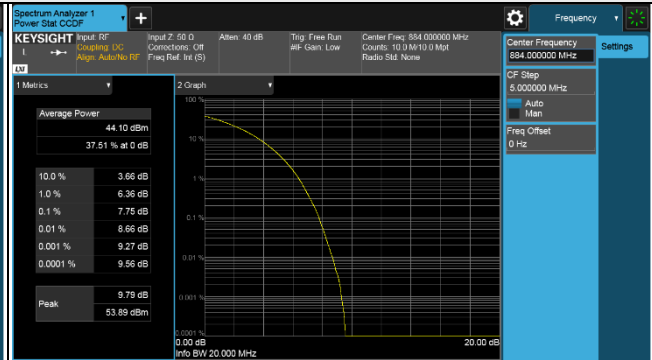
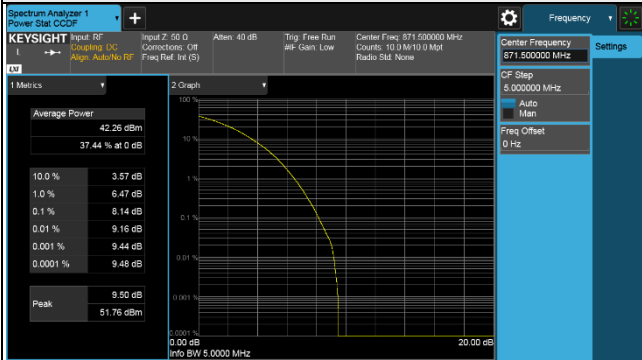
256QAM



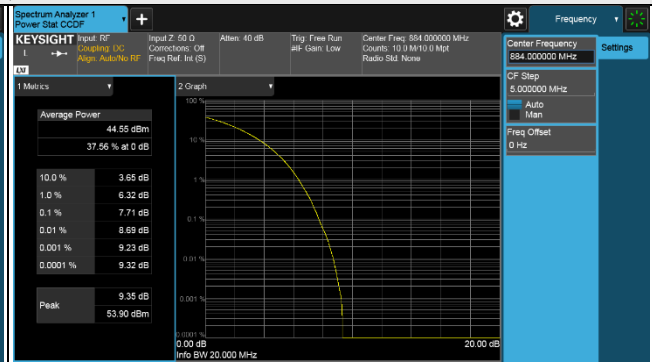
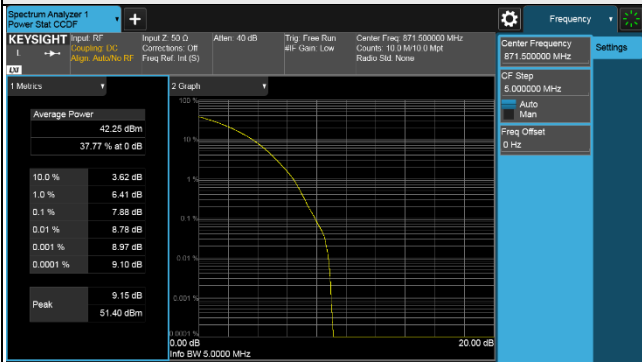
Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain1							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+176800	874+884	8.14	7.88	7.79	7.85	7.75	7.71	7.72	7.65

Spectrum Plot of Worst Value

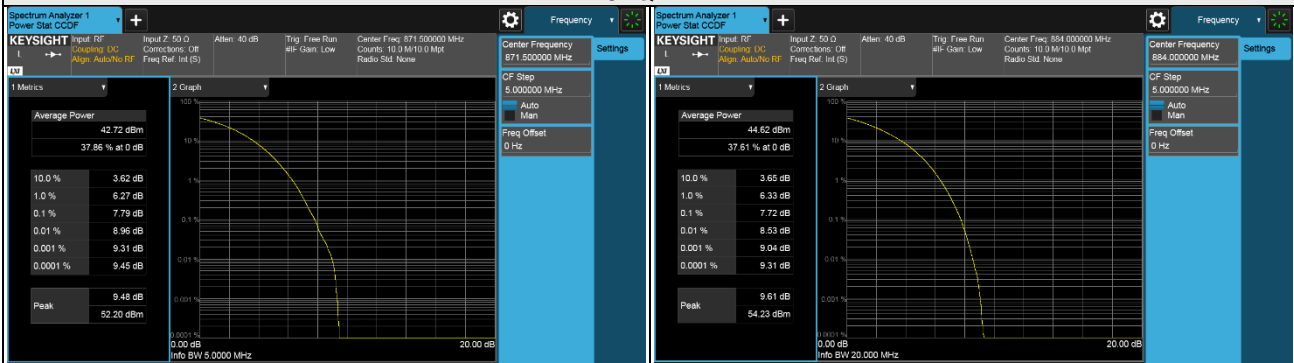
QPSK



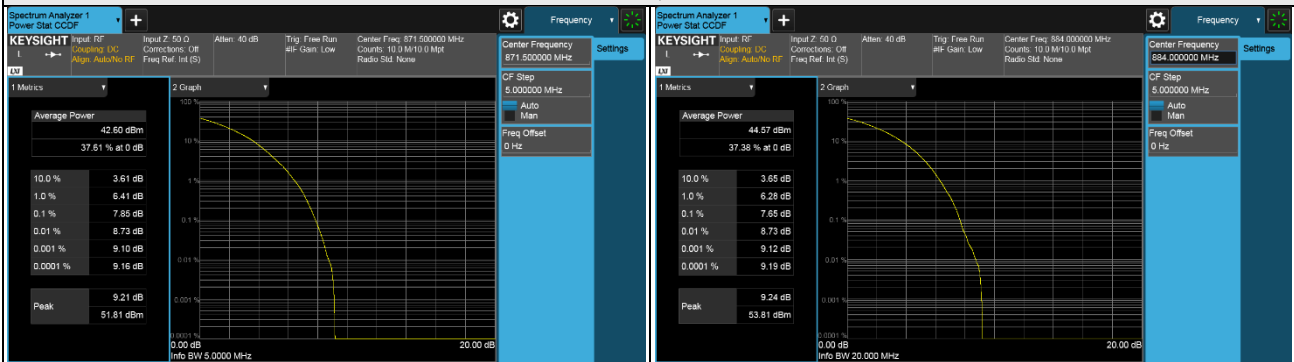
16QAM



64QAM



256QAM



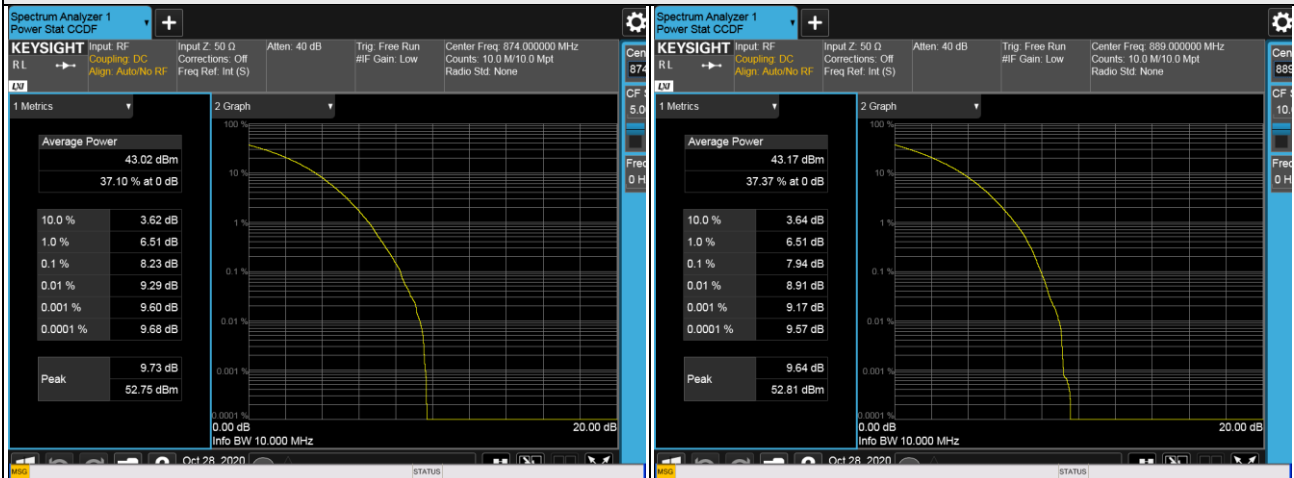
Non Contiguous Mode

10MHz+10MHz

Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain0							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+177800	874+889	8.23	8.19	8.00	8.12	7.94	7.85	7.81	8.10

Spectrum Plot of Worst Value

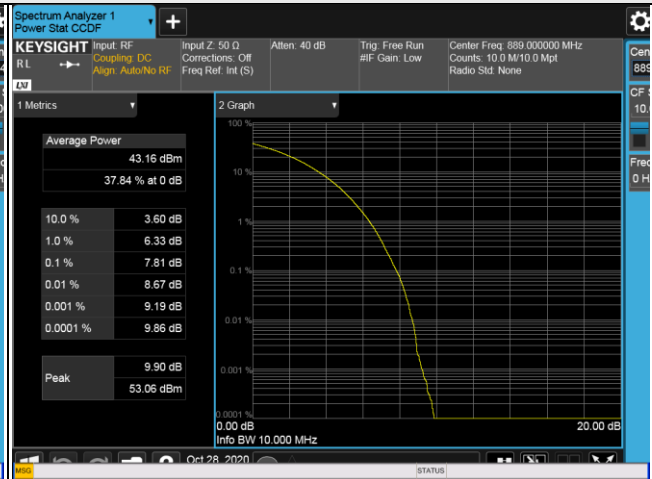
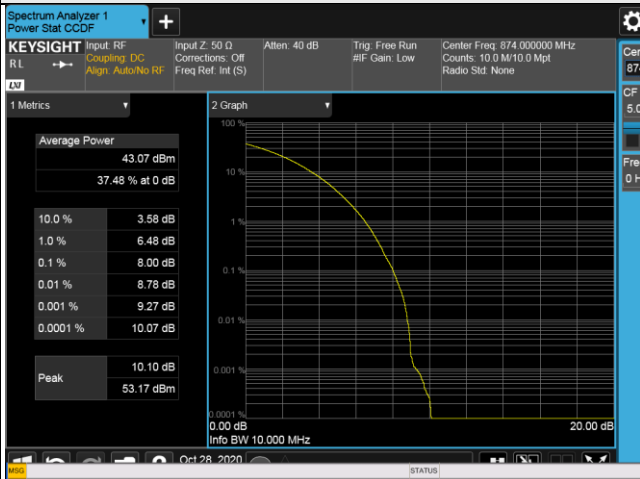
QPSK



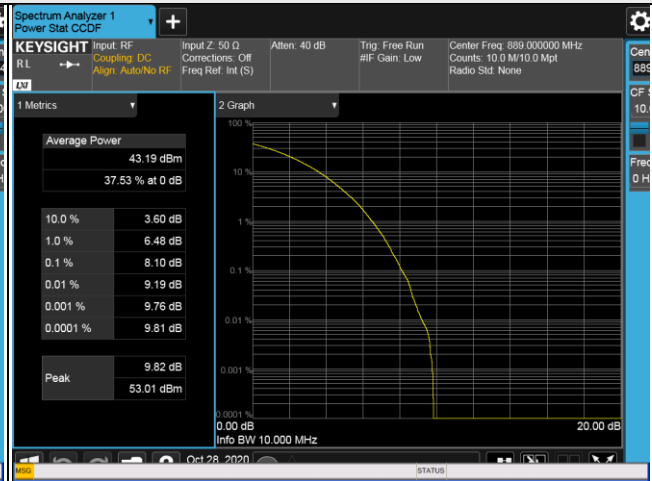
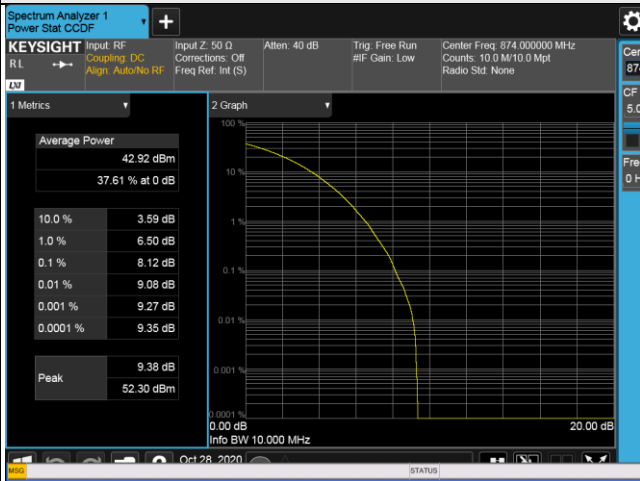
16QAM



64QAM



256QAM



Channel Number	Freq. (MHz)	Peak-to-Average Power Ratio (dB)							
		Chain1							
		CC0				CC1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
174800+177800	874+889	8.15	8.13	7.99	8.12	7.95	7.90	7.86	8.10

Spectrum Plot of Worst Value

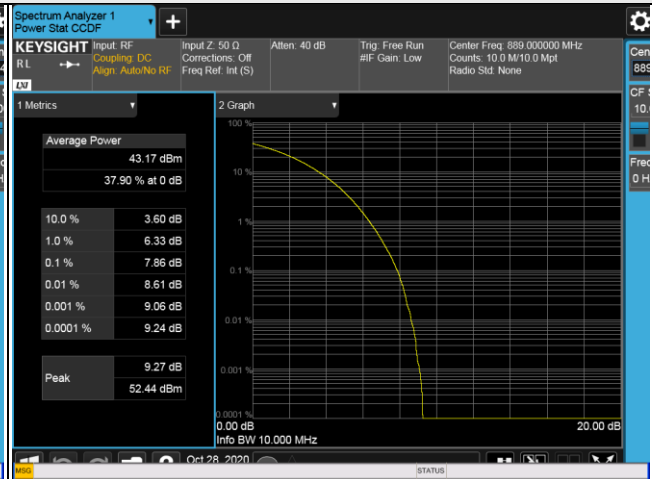
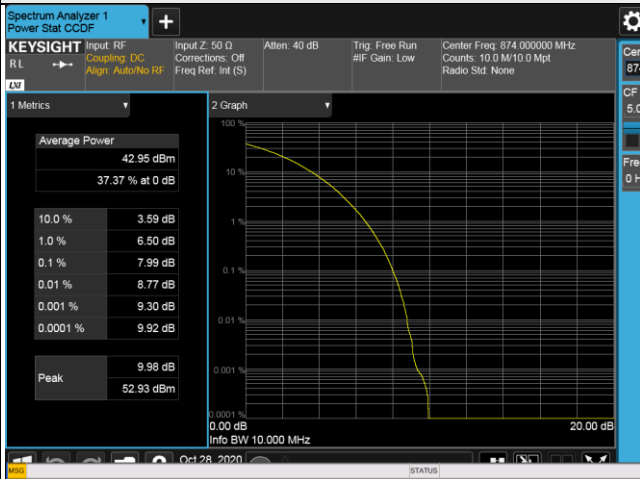
QPSK



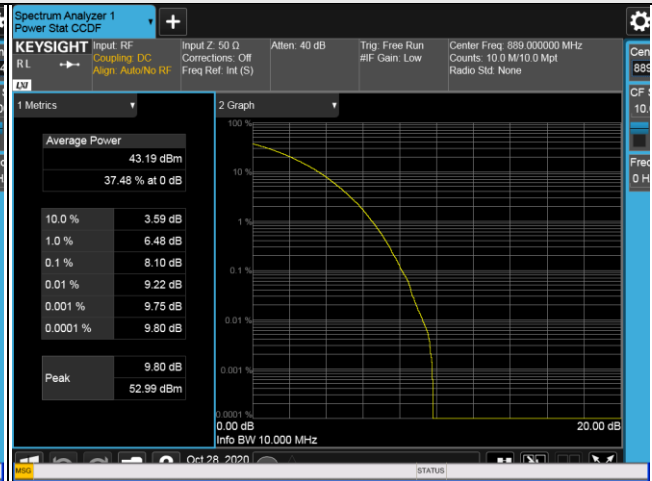
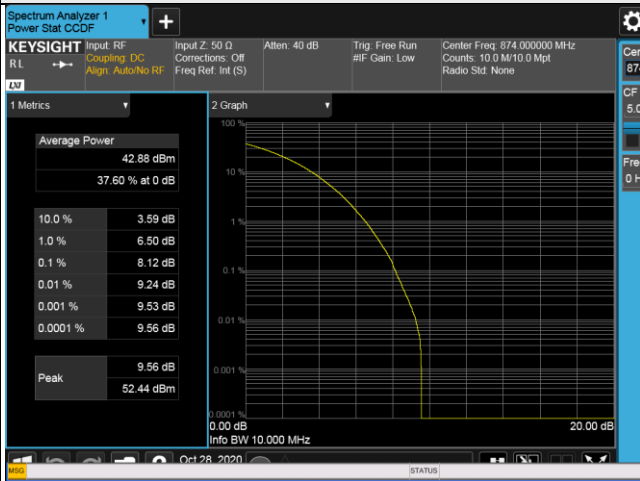
16QAM



64QAM



256QAM

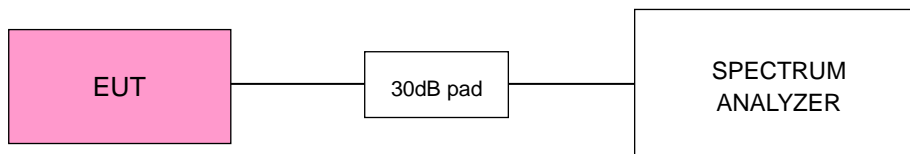


4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

4.7.2 Test Setup



4.7.3 Test Procedure

- a. All measurements were done at 3 channels: low, middle and high operational frequency range.
- b. When the spectrum scanned from 9kHz to 10GHz, it shall be connected to the 30dB pad attenuated the carried frequency.
- c. S.A. setting: RBW=100kHz, VBW=300kHz, Detector=RMS (Power average)